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Tongan Society

By

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INTRODUCTION

The bulk of the material presented in this paper was recorded in 1920- 101
1921 during my sojourn of nine months in Tonga as a member of the 114
Bayard Dominick Expedition of Bernice P. Bishop Museum.

This paper does not attempt a complete incorporation of all previously 114
published Tongan data but only such materials as seem pertinent to the [128]
discussion in hand. To some extent, therefore, the reader who desires
detail will find it necessary to consult other publications. Of published works Mariner's Tonga Islands (40)[1] is by far the most extensive and possesses the merit of great accuracy and understanding on the part of its author. Doubtless Mariner's work is to be regarded as the standard by which modern work is to be checked. A comparison of Mariner's records with mine near the completion of my sojourn in Tonga revealed a surprising similarity in the two sets of data recorded more than a century apart. Judged by this standard the data recorded in this paper have a relatively high degree of accuracy in spite of 75 years of Christianity in Tonga.

I express my gratitude to the numerous Tongans and Caucasians, all 127
resident in Tonga, whose names appear in various places throughout this 124
work. A considerable number of people kindly put at my disposal manuscripts recorded by themselves, by their forefathers, or by their predecessors in office. Special mention should be made of the archives of the Methodist and Catholic churches, of the Tamaha's genealogies, which were kindly put at my disposal by Her Majesty, the Queen of Tonga, of a manuscript by the matapule Elia Malupo which was loaned me by the Prince Consort Tungi, and of the manuscript materials put at my disposal by the late J. P. Maatu, the chief of Niuatoputapu Island. By far my greatest debt of gratitude is owing to the Reverend E. E. V. Collocott of the Methodist church, who most unselfishly put at my disposal a considerable quantity of ethnological material which he had personally recorded with the idea of ultimately publishing.

The future progress of research in the development of Tongan culture 000
lies largely in the hands of the Tongan rulers. When they allow the

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[1] The numbers in parentheses refer to the list of Literature Cited (p. 351).

[p. 3]

[pp. 1-2 are blank]

TABLE 6. PERCENTAGE OF HAA NAMES SHARED

	TONGATABU	HAAPAI	VAVAU	NIUAFOOU	NIUATO-PUTAPU	103
Tongatabu		17[a]	15	3	1	613
Haapai	38		22	4	3	174
Vavau	57	36		7	2	
Niuafoou	31	23	23		0	
Niuatoputapu	40	40	20	0		

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[a] This table is to be read horizontally, thus Tongatabu shares 17 per cent of its names with Haapai.

In an attempt to express the total interrelations of each pair of island 103
groups by a single figure, I present in Table 7 a sort of percentage-index 613
figure which is the average of the two percentages expressing the pro- 174
portion of shared names between each two island groups. Thus, as shown, 128
in Table 6, Tongatabu shares 17 per cent of its names with Haapai; Haapai shares 38 per cent of its names with Tongatabu. The percentage-index would then be the sum of 17 and 38, divided by 2, or 28.

TABLE 7. PERCENTAGE-INDEX OF HAA NAMES SHARED

	TONGATABU	HAAPAI	VAVAU	NIUAFOOU
Tongatabu				
Haapai	28			
Vavau	36	29		
Niuafoou	17	14	15	
Niuatoputapu	21	22	11	0

Table 7 shows the relationship of shared haa-names to be closest be- 103
tween Tongatabu and Vavau (index 36); then follows Haapai and Vavau 613
and Tongatabu and Haapai. In view of the geographic separation of 174
Tongatabu and Vavau by the intervening Haapai group and in view of the lower index for Tongatabu and adjacent Haapai, it seems apparent that the high index figure for Tongatabu and Vavau is due to historic causes.

TAUVU

The Fijian term *tauvu* has been used by Thomson (56, p. 5) to express 648
the special relationship which exists between two tribes or villages which 794
worship the same god.

Inquiry in Tonga elicited information about *tauvu* in only two places. The people of Tungua Island, Haapai, and Moala and Ketei in the windward [421]
islands of Fiji (32) are *tauvu* to each other; that is, they have the same god and so have full right to each other's goods.

Okoa Island, Vavau, which is the hereditary land of the Tui Lakepa, a chief of Fijian ancestry, is called *tauvu* to Ofu Island because smaller and dependent. Perhaps the real reason is that anciently they worshipped the same god.

When a Tamaha was to be appointed, the Tui Kanokupolu came and 644
prepared an oven of food and himself carried it to the Tui Haa Takalaua. 643
Together they carried the food to the Tui Tonga, probably in the fictitious
fashion described by Collocott (15, p. 43). The three chiefs then went to
the prospective Tamaha. Meanwhile all of the chiefs of the kingdom had [622]
assembled at the call of the Tui Haa Takalaua. The agreement was reached
beforehand between the Tui Tonga and the Tui Haa Takalaua as to who
was to be the new Tamaha, although birth had largely preordained this.
As with every other bestowal of title in Tonga, the calling of the Tamaha's [574]
new title in the kava circle constituted inauguration in office. Informants
were of the opinion that the Tamaha was appointed at maturity.

The derivation of the word *tamaha* was given by one informant as *tama* 644
(child), *ha* (to appear); by another as *tama* (child), *ha* (above, in the 192
sense of rank), by another as *tama* (child), *ha* (sacred, cf. Samoan *sa*).
The Tamaha was not regarded as the incarnation of a divinity. [776]

In travelling, the Tamaha was usually carried in a palanquin; sometimes 644
she walked. When she passed, people seated themselves with folded hands [493]
and bowed head. Her uncle, the male Tui Tonga, brought his offerings and [481]
sat down before her with all humility. Sick people came to her for cure [576]
(23, p. 145). [643]
[755]

One of the chief residences of the Tamaha was the island of Tungua,
Haapai. It is one of the seats of the Tui Haa Teiho. When boats passed in [576]
front of the Tamaha's house which was near the beach, the paddlers got
overboard and swam with the boat until beyond the dwelling. This custom
is analogous to the modern one of dismounting from a horse when passing
the Queen's residence.

A series of special words used for the Tamaha, the Female Tui Tonga, [128]
and the male Tui Tonga are on page 119.

THE TUI HAA TAKALAUA

The great chiefly houses of the Tui Haa Takalaua and the Tui Kanokupolu 613
are nothing more than collateral branches of the dynasty of Tui 643
Tonga which began with Ahoeitu. The first Tui Haa Takalaua was a younger
brother of a Tui Tonga and the first Tui Kanokupolu was a younger brother
of a Tui Haa Takalaua. Hence the stress which so many writers lay upon
the spiritual and the temporal lines of rulers in Tonga should be understood
to refer to difference of function and degree of chiefliness and sanctity only,
not difference of origin, for both lines claim the same semi-divine ancestor,
Ahoeitu. Besides this community of origin, the three great chiefly houses [581]
of Tonga were thoroughly linked by marriage.

The office of Tui Haa Takalaua is reputed to have been founded by the

THE CHIEFS OF LOFANGA ISLAND, HAAPAI

The earliest chiefly title in Lofanga, so far as I could learn, was that of 622
Sinilau, a name which is still bestowed. There later arose to power a chief 173
named Fanua Lofanga who belonged to the family of Loau, the Tui Haamea, and who is said to have gone to Lofanga to live and to have eclipsed Sinilau in importance. This title also has a modern holder in Lofanga.

The fortunes of these two chiefs did not remain stable for it is said that Sinilau received the whole island of Lofanga as an inheritance (*tofia*) from the Tui Tonga and that Fanua Lofanga never had much land, only a single tract (*api*). Although Fanua Lofanga became politically the more important chief, probably because of his connection with the Tui Haa Takalaua in Tongatabu, the island continued to be called the property of Sinilau. Today the land is claimed by the Tongan Government. It is said that Sinilau's holdings are still large and Fanua Lofanga's small.

The origin of the Sinilau chieftainship is unknown. The name is that [776]
of one of the Polynesian gods, and, like that god, the holders of the Sinilau chieftainship are reputed to have been handsome.

One Sinilau is reputed to have stolen the daughter of the chief Niukapu of Fangaleounga, Foa Island, on the eve of her marriage to Tungimanaia. She bore him two daughters, Nanasi, and Kafoatu. They both married the chief Malupo of Uiha, the elder sister Nanasi as the *fokonofo* of her younger sister.

TITLES OF CHIEFS

622
I present below certain of the chiefly titles together with data as to 554
origin and incumbents. (See also p. 130.) King George I created the mod- [128]
ern title *nobeli* (noble) as designation A for those chiefs who retain their [643]
hereditary lands (*tofia*). See figure 1. A [565]

Ahio, highest chief of the Haa Ngata Motua and recipient of the largest share 622
at feasts. Seat at Kolovai, Tongatabu. At the death of the first Tui Kanokupolu Ngata, 173
Ahio was in Eua. He declined to become Tui Kanokupolu, saying, "Make one of 551
my younger brothers Tui Kanokupolu." He is comparable to the Tui Tonga in re- 554
serving chiefliness and passing temporal troubles to another. He has no matapule 613
but on occasion borrows one. The first Ahio was the son of Vakalepu (the son of the first Tui Kanokupolu Ngata and Hifo, daughter of Ahomee). J. Vehikite Ahio was chief in 1862.

Ahomee, a chief of the Haa Ngata Motua, seat at Haa Vakatolo, Tongatabu. Title antedates that of Tui Kanokupolu as the first Tui Kanokupolu married daughters of Ahomee. An Ahomee named Otukolo succeeded his father, Daniel Ahomee, who died Sept. 21, 1896.

Ata, leader of the Haa Ngata Motua, seat at Kolovai, Tongatabu. The title was borne in turn by Kaumavae, son of first Tui Kanokupolu Ngata; Atafakahau, son of Kaumavae; Puakahuhua, son of Atafakahau; the Ata murdered at Houma, son of Puakahuhua; Fisihoi, son of Puakahuhua; Tofuaipangai, son's (Ngata) son of Atafakahau; Tautalanoa, son of Tofuaipangai; Ula, brother's (Masima) son's (Manuopangai) son of Tautalanoa, Ata in 1921.

A.[See category 116, p. 96--Analyst]

(*tehina*). J. Langoia Vahai was chief in 1862. J. Vahai died August 14, 1900. An 622
earlier Vahai bore the personal name of Toloaatonga. 173

Valu, chief of Utulau, Tongatabu. 551

Veehala, a chief of the Haa Ngata Motua, resident at Fahefa, Tongatabu. The 554
first Veehala was the son of Leilua (the son of the first Tui Kanokupolu Ngata and 613
of Kaufoou, the daughter of Ahomee). Punou Veehala was chief in 1862. Shadrach
Veehala (son of Ata), died March 26, 1893.

Veikune, a chief of the Sinae ki Mua. The name Veikune was made a title by King George II as a reward to Jiosateki Veikune, premier of Tonga from 1893 till 1904. The holder of the title in 1921 was the Governor of Vavau. Osaiasi Tonga Veikune died January 3, 1867. Jiosateki Veikune died October 17, 1913.

Vunivalu, the first Vunivalu mentioned in the Tamaha's genealogies bore the personal name Matausioehau, and was the son of a Tongan woman named Kalaepulevalu and a Fijian named Ate. He was succeeded by his son Uaisele (Wesley?) Fifita, and Fifita was succeeded as Vunivalu by his son Maafu, and Maafu was succeeded by his son Tupou. Hocart (32) derives the Tongan Vunivalu from Lakemba.

MATAPULES

624
The matapules (called by some writers petty chiefs) are, strictly speak- 565
ing, the titled ceremonial attendants of titled chiefs as distinguished from at- [622]
tendants in general (*takanga*). But like *eiki* (chief), the word matapule
has been extended in application to include all persons who are of matapule
rank by virtue of their blood, regardless of whether they hold titles or not.
Only one person in a family at one time holds a matapule title. Only a [622]
titled chief may have a titled matapule. Kava can be presented ceremonially [276]
only by a matapule; even a titled chief can present kava to the Queen only
through a matapule.

Some of the duties of the matapule are described in the sections "The [128]
court of the Tui Tonga" (pp. 63-71) and "Kava drinking" (pp. 156-168).

Like the titled chief, the titled matapule is the representative of the 565
first title bearer or ancestor. As a rule he serves the titled chief whose 622
ancestor his ancestor served. There is a very considerable range in the 624
power and influence of matapules, their positions being correlated largely
with the power and influence of the chiefs they serve. Thus to-day Lauaki [643]
and Motuapuaka are by far the greatest of the matapules, for they serve [644]
the sovereign Tui Kanokupolu. On the other hand the present matapules [643]
of the Tui Tonga exercise no such power and influence as did their prede- [178]
cessors in the days when the Tui Tonga was flourishing.

The matapules are related to both chiefs and commoners. The ancestor of 565
Lauaki is reputed to have descended from the sky with his brother Ahoeitu, 173
the first Tui Tonga, but most other matapule titles are traced to the advent 167
of some foreigner from Fiji, Samoa, Rotuma, or Tokelau. Just what significance is to be attached to the absence of matapules from Niue and Futuna, I do not know. Their absence from Uvea, Niuatoputapu, and Niuafoou is no doubt connected with the feeling that the inhabitants of those islands are Ton-

house of their god. Thereafter they were buried. Mariner's description (40) 727
indicates that enemy dead were presented as offerings to the gods.

The slaughter of male prisoners, even of those wounded, seems to have been frequent and Mariner gives instances. Near Pea, Tongatabu, is a tract, Fakaveleatenge, named in commemoration of a killing which took place at the order of the war leader Takai. Some of Takai's men had been foraging and decoyed a body of the enemy into a fight, perhaps an ambush. Some of the enemy wounded were brought to a house on the tract mentioned and there slain.

The following quotations from Wilson (66, p. xlvii) refer to the state 411
of the country when Tasman and Cook visited it.

> No weapons were seen by Tasman at Tongataboo; which circumstance, as well as [609]
> their unsuspicious conduct toward strangers so formidably equipped, indicates that they
> had been accustomed to a state of general peace and security. No quarrel occurred [177]
> during this interview; and the Dutch, after having obtained abundance of provisions,
> but very little water, proceeded to the adjacent islands to the northward.

In Cook's time "weapons of a very formidable nature were then found among them, although they usually went unarmed. Their spears were barbed in a very dangerous manner and their clubs very curiously carved."

In Mariner's time warfare had become general and weapons were much
in evidence. In addition to clubs and spears, bows and arrows were then [177]
used, which seem likely to be an adaptation from Fiji, rather than a fundamental Polynesian weapon the use of which survived only in Tonga.

A short text about the two great matapule, Maliepo (Lauaki) and Molofaha (Motuapuaka) refers to weapons as follows:

> And if the land is dark (at war), then Maliepo and Molofaha will speak to the regiments in case they come along with their burdens, the spear with stingray barb (*taofai*), the headed spear (*taotala*), the owl-headed club (*ualulu*), the eight-faced club or eight-barbed spear (*likuvalu*), the paddle-shaped club (*moungalaulau*), the club (*tui tapavalu*), and the toothed club (*nifoosi*).

Holes (*luoto*) with pointed stakes at the bottom were dug in trails along 725
which it was thought enemies might approach.

WAR STORIES

The following campaign stories obtained from the lips of modern in- 669
formants and from manuscripts are arranged so far as possible in chrono- [124]
logic order. The fighting in the period between the assassination of the [127]
Tui Kanokupolu Tukuaho in 1799 and the appointment of his son Tupou- [128]
toa in 1812 is not included because already covered by other writers. The [173]
following accounts deal chiefly with the campaigns of Tupoutoa and his son Taufaahau, who was appointed Tui Kanokupolu in 1845, and later became King George I.

Veamatahau, Vea, from Matahau. T,H,V
Veaniua, Vea from Niuatoputapu. T
Veatama, the child who is a chief.
Veatokelau, the chief from the north, Vea of the north.
Veatoki, a strong chief.
Veatonga, Vea from the south.
Veatoutai, Vea the chief of fishermen. T
Veatupu, Vea the strong; a chief that is distinguished. T, H, V
Veehala, the side of the road; not in step; to step wrong (as in a dance). T,V
Veekalifisi, the feet of the wooden pillow from Fiji.
Veetokelau, the feet that come from the north; foot of the north.
Veetutu, the feet that beat time in the dance. H
Vehikite, something that appears in sight. T,V,NT
Veikune, a good chief. T,H,V
Vela, hot; to burn; to scald. NT
Velevelu, the good that comes quickly.
Velia, itchy.
Velovelo, throw the dart (it was the cry of the warriors when fighting). T
Vesi, verse. T ,
Vete, to seize the spoil of a conquered foe; to disburden; the name of a fish. T 551
Vetule, to jog along, as one old or weak. H
Veua, two things.
Vi, the name of a tree and its fruit. T, H, V, NT, NF
Viau, something of mine. H,NF
Vika, Victoria. H
Vikaheilala, Victoria of the *heilala* tree.
Vikatoa, a whole *vi* fruit; all the *vi* fruit. V
Vikena, the *vi* fruit that is reddish when ripe. T,H
Vilai, a bean. T
Vili, a gimlet; to drill; to go quickly. T
Viliami, William. T
Vilingia, to be blown away; to be blown. H
Vivi, the name of a grass; dead; stinking. V, NT
Vivili, to feel; to be conscious of. NT
Vola, a fast dye. H
Vuki, something at a distance. H,V
Vulase (a Fijian word).
Vuna, a real chief. T
Vunaila, a chief with a scar.
Vungakoto, the step upon which the mast of the vessel stands. V

THE OUTLYING ISLANDS

Although little was added to the previous knowledge concerning the 128
expansion of the Tongans beyond the limits of the modern kingdom of
Tonga, some light was obtained as to the peopling of some of the remoter
islands of the Tongan Archipelago proper. The islands I refer to in particular, [103]
named from north to south, are Fonualei, Toku, Late, Kao, and Ata
or Pylstaarts. The first is now a hopeless wreck due to volcanic activity. 133
Toku, Late, Kao, and Ata are no longer inhabited. Late and Kao are high [162]
volcanic islands. Ata is high and presumably volcanic. Toku is low and
according to Tongan informants coralline. Most of my information concerns 128
Ata. Before taking up that island I shall first discuss the brief
data concerning the others. As will appear, these outlying islands sometimes [727]
served as havens for the politically disfavored. (See Harangue about [166]
Mumui, p. 156, in which the poet exclaims, "Exile me to Toku Island.")

Toku and Fonualei were held by a single group of people. Toku seems 162
to have been the residence center and Fonualei the farming center, the 311
Toku people utilizing Fonualei for gardens, perhaps because of the volcanic

[Ata Island]

> bodies he returned to Nomuka, where he performed his inhuman orgies in a cave, which 166
> is said to be still full of the bones of his many victims. The peopling of the distant 173
> island, called Pylstaarts, about ninety miles to the south of Tongatabu, is attributed 266
> to this cause. In the depth of a dark and stormy night, Uhila effected a landing upon
> the island of Atata, one of the Tonga group. To escape his murderous attack, a party [501]
> of the inhabitants hastily manned a *ñamatefua*, or single-sailing canoe, which happened
> to be moored on the lee side of the island. Hoisting the sail, they bore away, intending to make for the adjacent coast of Tongatabu. This, however, they were unable to do, owing to the darkness and the increasing storm. They were carried they knew not whither. They seemed only to have escaped one kind of death to meet with another. But the wind and sea carried them straight upon *Ata*, the Pylstaarts Island of the charts, where the little company grew into a Tonguese colony, which has, in recent years, claimed kindred with Tonga, and has received, in return, the blessing of the Gospel.

What follows concerning Ata has been derived entirely from modern 128
Tongans, mostly former inhabitants of that island now residing in Eua Island, and also from Leha, the carpenter for Pangia, the last Tui Tonga's descendant.

The Tongan name is really 'Ata, which means reflection. Ata is the 103
title of a great chief, which means dawn. Another name is Atā, which is
the name of the island close to Tongatabu. This name means more room, [773]
expanding, and evidently has reference to the mythical origin of this island,
which is believed to have arisen spontaneously from the depths of the sea and to be the first island of the Tongan archipelago to appear above the face of the waters.

Ata is a very steep, volcanic island. The anchorage is on the west side 133
of the island and from the beach a trail leads upward. There was but one 504 487
town on Ata and it was called Kolomaile, literally Myrtle town. It was 361
divided into three sections: Hihifo (the west end), Auloto, and Pea. Pea was apparently named after the village of Pea in Tongatabu. The reason for so believing will appear later when I recount the story of the visit from the god of Pea to Ata. The people of Ata did not live on their farms as did Tongans elsewhere but lived together in the town. Each of these three divisions of the town had a district of its own for farming. Whether or not each district was divided into individual family holdings could not be determined.

The traditional discovery of Ata is attributed to the diviner Hama 173
(16, p. 52). Apparently some time later the island was visited by a man 166
named Motuapuaka, who eloped to Ata with the Tui Tonga's daughter 484
named Tapuosi. Motuapuaka is said to have earlier sighted the island while fishing for bonito, so when he eloped with Tapuosi he headed for the island
as a likely place of refuge from the wrath of the Tui Tonga. According to 173
two informants from Ata there were already aborigines upon the island 166
when Motuapuaka and Tapuosi arrived. The details of their adventures 484
upon arriving at Ata were related by Tupouata, a descendant of the prin- 609
cipal chief of the island, the Tui Ata. According to one informant there

TONGAN RELIGION

SOURCE OF INFORMATION

My notes on the ancient religion of Tonga are scant, as might well be 128 expected 75 years after the complete Christianization of the country. The [797] material here presented is in part supplementary to that already published (26). Some of it is amplification of published materials by Collocott and others.

Collocott (9, pp. 152-163, 227-240) has so thoroughly portrayed the char- 114 acteristics of the principal gods of Tongatabu that there is little left to do except supplement his account with further details. Farmer (23, pp. 125-146) also gives a brief sketch of the principal Tongan gods and of the functions of the priests. Most of Farmer's information was obtained from [115] the Reverend John Thomas, a Methodist missionary. The nature of the gods is well handled by Mariner, Farmer, and Collocott.

PULOTU

Pulotu, the unseen world, and domain of the god or goddess Hikuleo (23, 772 775 p. 132), was believed to lie to the westward and to be reached by sea. A [776] number of stories are told of voyages (26, p. 153) to Pulotu. There seems to be a certain tendency among modern Tongans to identify Pulotu with the underworld, Lolofonua. Pulotu is also identified by some modern informants with the cemetery or graveyard. Anciently, it was thought that a [776] living man might visit Pulotu to recover a dead wife (26, p. 183), and that Hikuleo would assemble the spirits so that the wife might be selected, also that Hikuleo would then re-animate the visitor, so that he might return to the earth.

Among modern Tongans who regard Pulotu as equivalent to the under- 775 world, two entrances are pointed out. One of them consists of a deep hole 823 on the island of Koloa, Vavau, a hole which mythology says was the opening 772 by which fire was brought from the underworld to this world by Maui Kisikisi. The second opening to Pulotu, in its modern identification with the underworld, is through the volcano in the island of Tofua. People who [761] formerly lived on Tofua report that whenever someone died in the Haapai Islands, crying or singing would be heard at the volcano. If crying is heard to-day it is interpreted to mean a dead sinner; if singing, a good Christian on his way to Pulotu. There are three divisions of Pulotu called Pulotu 775 Tete, Pulotu Akaaka, and Pulotu Tuumau. The following quotation is from 772 Watkin (61):

> They have some idea of the future existence of the soul, but it is obscure indeed. There exist notions among them which savour something of the Hindoo notion of successive births in the future world, two deaths awaiting them after that endured in this world when they are freed from further mutation. The heaven they calculate

Tui Tofua

I have given (26, p. 77) a number of tales about the god of Tofua 776
Island, reputed to have been a chief's son who committed suicide by drowning and who was transformed into a huge man-eating shark. The father of Tui Tofua was named Vakafuhu (possibly the Tui Tonga Vakafuhu), and his tomb is said to be located on Tofua Island. It is of stone and very smooth and flat, rather different from a langi or royal tomb. The name of Tui Tofua's mother was Langitaetaea. The term Tui Tofua is not a title, but a personal name applied only to the individual who became a shark god. The title of the ruler of Tofua is Taufa Tofua.

Deities of Tongatabu Island

Collocott (9) has dealt so thoroughly with the deities of the Tongatabu [128]
Islands that I can hope to add only comments and minor details. I have already discussed Tui Haa Fakafanua and Taufa.

According to one informant, the god Taliaitupou, as well as the god Pulotu [821]
Katoa, was capable of stopping a hurricane if beseeched. If the people went to the house of Taliaitupou to secure cessation of a hurricane, upon returning to their homes the hurricane would be over. Collocott (op. cit. p. 230) 776
states that one sacred object of Taliaitupou was a large black volcanic pebble. 778
As there is another deity, namely, Fakafumaka or Vakafuhu, whose first name refers to a stone, it seems not impossible to me that the volcanic pebble referred to may be the sacred object of Fakafumaka rather than of Taliaitupou. The stone, which I saw at the Methodist headquarters in Nukualofa, is called Tui Ahau. A companion stone lies at Kolovai in Tongatabu and gives us an example of animatism among the Tongans, inasmuch as it is considered capable of bringing forth small pebbles. That white coral pebbles [823]
and black volcanic pebbles buried together will increase, is firmly believed by Tongans to-day.

The local deity of Nukualofa is said to have been a goddess named Popua. 776
She was reputed to be endowed with poor legs and it is said in consequence [826]
Nukualofa people have poor legs. When the first missionary ship was off [797]
the island of Malinoa near Tongatabu, Popua informed the Tongans that she had come to them because of her affection, but that the white man's god that was coming in the ship was stronger than the native gods, all of whom had retired to Ata Island (north of Tongatabu), whither she too was going.

The god Vaiuka, who had his seat at Niutoua, manifested himself through the matapule priest Leha (op. cit. p. 233). Pulotu Katoa, a god who comes in for considerable notice from Collocott (op. cit. p. 162), seems to have been a very important deity in Tongatabu. According to Watkin (61), this god [821]
caused storms because of his displeasure over the introduction of Christianity. [798]

THE ADVENT OF CHRISTIANITY

Thomson (54, pp. 200-203) has well portrayed the situation in Tonga 797
during the period of the conversion to Christianity. As he points out, [622]
resistance to the spread of Christianity came not from the heathen priests
but from the chiefs, who apparently realized that Christianity struck at
the root of their time-honored privileges.

I shall not attempt to trace the spread of Christianity but shall merely [128]
refer to certain interesting incidents in connection with its introduction—
incidents which to some extent reflect the religious attitude of the Tongans.

As far back as the fifteenth century there is traditional record of skepticism as to the power of the gods. I refer to the tradition concerning the Tui Tonga Kauulufonua I, who cried, "The gods are fools!" when he was wounded in battle. Mariner dwells upon the skepticism and irreligion of his patron Ulukalala II, who even went so far as to order the priest of his god strangled, but who was prevented from having the execution carried out by his own sudden death, an event which no doubt restored the prestige of the gods in the minds of many Tongans. 771

Stories are current that certain of the old gods gave oracles concerning 776
the advent of Christianity and the destruction of the old order. At Pea, 787
Tongatabu, it is related that the house of one god miraculously disappeared 797
overnight, because the deity was provoked over the coming of the new
religion.

The narrative of Peter Vi (3) refers particularly to the part taken by 797
Taufaahau (afterwards King George I) in the destruction of the heathen 798
places of worship. That he was actuated entirely by Christian motives 669
seems unlikely. In any event, murders and wholesale slaughters of the
heathen were indulged in in the name of Christianity. The fortresses of [727]
Ngeleia and Hule were captured and their inhabitants slaughtered (pp. 215,
216). The events related below refer to the period just before and just after
1830. Taufaahau was then the Tui Haapai. He had not yet succeeded to the
rule of Vavau, or to the rule of Tongatabu. About 1829 the following event
took place:

> It was said that Taufa, the Tui Nomuka, was coming to Malupo (of Uiha Island) to get reeds for making spears for Tuita and Lolohea. Taufaahau was to be held while they killed the Christians. Taufaahau was informed of this on the day of the feast of the gods called Tautaulotufonua. The feast was held at the gates of the fortress and boxing and wrestling games, etc., were held. [The killing of the Christians was prevented.]
>
> There were many priests and god houses at Haapai, and Taufaahau said to Peter Vi and some others, "Let us go to the priestess of the god house at Holopeka." When we arrived there we found that she had gone to Faleloa. As we went along the road the king rooted up a big banana plant and carried it along. Peter Vi asked: "What is that for?"
>
> Taufaahau replied, "Something to hit the god with."

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down all that he had seen and heard as his 114
memory might spontaneously furnish it, in order that these materials might afterwards be made, from time to time, subjects of conversation, strict scrutiny, amplification, arrangement and composition. Not one of the ensuing pages has therefore been written without Mr. Mariner's presence, that he might be consulted in regard to every little circumstance or observation that could in the smallest degree affect the truth of the subject under consideration: and, in this way, it is presumed that a great deal more useful and interesting matter has been elicited than would probably have occurred to him through the medium of his own unassisted reflections; for conversation calls to mind many things that would otherwise have escaped the memory, it constantly demands elucidations; one idea gives birth to another, until the whole subject lies completely unfolded to the mind.

With regard to arrangement: in the 128
first place is related an account of the 126
voyage of the Port au Prince, it being

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esteemed sufficiently interesting, as it in- 128
volves a combination of untoward circum- [126]
stances that led ultimately to the destruction of the ship: the whole of this has been faithfully composed from a journal kept by Mr. Mariner on board. Next [669]
follows a narrative, or rather, as it may be termed, a historical account, of all the important and interesting events that occurred during his stay at the Tonga Islands; not merely as they regarded himself, but with an aspect to the different changes, religious and political, since they affected, in a most important manner, the situation of public affairs: and that this portion of the work may be better understood, a comparison is drawn between the state of these islands upon Mr. Mariner's arrival, and that in which Captain Cook had previously found them; in doing which the revolution of Tonga *, and other important and highly interesting events which had taken place in the mean while, are given according to the account of the

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* From the "Transactions of the Missionary Society," it appears that this event took place in May, 1799.

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principal natives of divers parties, who [128] had been eye-witnesses. The narration of [669] events being brought down to the period of Mr. Mariner's fortunate escape *, the remainder of the work furnishes a more intimate detail of the state of society in regard to rank and professions; their religious and political government; the names and attributes of their principal gods; their notions of the human soul, and of a future state of existence; an investigation of their moral principles, and of their state of morals; a description of their most important religious ceremonies; an account of the healing art, with a detail of some important surgical operations practised by them; a description of their principal manufactures; their games and amusements; music, songs, &c.; and, lastly, a grammar of their language, and a vocabulary to the

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* The term escape is here used with propriety, for although Mr. M. was well treated, and had every thing that [609] he could *there* want, the opportunities of returning home [727] were very rare, and when he was about to profit from one that presented itself, his intention was opposed, and he was under the necessity of destroying one of the natives to accomplish his purpose.

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128 extent of above two thousand genuine Tonga words.

122
128 As it will, no doubt, be satisfactory to the reader to know how the rules and
104 idioms of this heretofore unwritten language have been investigated, it is proper to state that Mr. Mariner carefully selected out of an English dictionary all those words to which he could find appropriate Tonga words, or well adapted phrases; and having myself assiduously attended to the elementary sounds of the language, and determined upon a plan of orthography, I undertook the charge of arranging all the Tonga words alphabetically, by which means my ear and eye became accustomed to them, and several were stored up in my memory. In the mean while Mr. Mariner wrote down several dialogues and popular tales in the Tonga language; and I afterwards exercised myself, with his assistance, and that of the vocabulary, in making literal translations to them, and thus became acquainted, more or less, with the idiom; and, at the same time, I had the opportunity of furnishing the Tonga

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part of the vocabulary, from the dialogues 122
and tales, with other words. In the next 128
place, having written down sundry exam- 104
ples in English, illustrative of every part [197]
of speech, in a variety of forms, and upon a variety of subjects, I gave them to Mr. Mariner to translate into Tonga, according to the strict idiom of that language: by this method we began to perceive what could be translated, and what could not; we discovered where the Tonga language was poor in expression, and where it was more richly endowed; what were the fundamental principles of construction, and what the particular idioms and exceptions to the general rules:—and thus proceeding, step by step, the character and genius of the language were unfolded; and, at length, we arrived at that degree of theoretical knowledge of the structure of it which is now, for the first time, presented to the public.

Every attempt to afford accurate inform- 000
ation respecting the manners, customs, and sentiments of any portion of the human species, cannot but be considered, in

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ing to his mind the original Tonga in which 114
it was spoken. Sometime afterwards I
found the first, and was much pleased to 114
discover so little difference between them, 128
that they appeared almost like copies, which sufficiently evinced the correctness with which he remembered the original Tonga, and at the same time furnished an instance of the characteristic uniformity of his expression in his own language. Two or three months afterwards I reminded him of the propriety of writing down in the Tonga language all that he knew of their popular tales, speeches, songs, &c. while they were fresh in his memory; he did so, and at a subsequent period when the dictionary of the language was in a state of forwardness, I translated them literally with his occasional assistance, and had a new proof of the correctness, as to sense, of what he had before given me of Finow's speech, the English copies of which I had
all along kept in my possession. As a retentive 114
memory was a quality particularly essential to Mr. Mariner, under the circumstances in which he was placed, it is worth mentioning, that even when I be-

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000 [171] [562] ing proof how much a line of conduct, influenced by liberality and respect towards females, is productive of morality.

P. 206—7. The author here mentions a custom of the queen, that of preserving the bones of her father, wrapt up carefully in a piece of cloth, "*because she loved her father so dearly.*" Mr. Mariner saw these bones, and on enquiry, found it was not merely a custom of the queen, but a common practice among them.

P. 209. In regard to the question, whether the natives of the Sandwich islands are cannibals, Mr. Mariner is disposed to believe that they are not; those natives who were with him at Tonga always strongly denied the charge.

[114] These several statements, it is hoped, the reader will not think tedious: they serve as very fair proofs of the accuracy with which Mr. Mariner noticed what he saw, and the fidelity of his memory in re-
128 taining it. Some of these statements, as before mentioned, are inserted in the body of the present work, and were printed off before Mr. Campbell's book was pub-

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lished: to these may be added, the knowledge of the Sandwich islanders in the use 128 of emetics and cathartics, as related in the second volume of this work, p. 232, and in Mr. Campbell's book, p. 174; and it is worth notice, that from the difference of the ingredients mentioned in the two accounts, it appears they are acquainted with more than one kind of each medicine. In regard to what Mr. Mariner relates 000 concerning the bones of Captain Cook, (see Vol. II. p. 62), it is rather extraordinary that Mr. Campbell makes no mention of any thing of the kind: it is possible the custom was dropped before his time, under the idea of giving offence to the English people. Mr. Mariner has no doubt of the fact, from the positive manner in which it was related to him by Hairbottle, and afterwards by those Sandwich-island natives that were with him at Tonga: perhaps Mr. Campbell can throw some light upon the subject.

Having thus far sketched an outline of 114 Mr. Mariner's education and early habits, and given some instances in proof of his

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114 period he has been situated in the counting-house of a respectable merchant in the city, where he is still. His health is by no means good: this and other circumstances have occasioned the work several times to be suspended for above two months together; for, as I have before stated, not a single page of it has been written, even from his own memoranda, without his presence, which, in general, I could only have in the evening, or at night, after the hours of business, and his health did not always admit of such additional employment of his attention. He resides at No. 5, Edward's-place, Hackney-road.

128 In regard to my own labour in the present work I shall say but little. I am sensible there are many faults, and though I am by no means disposed to trouble the reader with unseasonable apologies, I beg leave to state, that the following pages were not written in the order they were destined to assume, but at very uncertain and irregular periods, as the result of various conversations; that sometimes the vocabulary, at other times the narrative mat-

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ter; at one period the grammar of the language, and at another the descriptions of ceremonies, formed the subject of discourse, indiscriminately, as opportunity offered: consequently, many phrases may have been used which the judicious critic will perhaps think too familiar and conversational, and which, under other circumstances, would easily have been avoided. In short, it is the excellence of the materials, tolerably well arranged, not any supposed merit in the composition, which is here offered as a subject of claim to the honour of public attention. 128

In respect to natural history, not much has been inserted, and that with little or no attempt at scientific distinctions of terms; for this being a branch of knowledge with which Mr. Mariner was but little acquainted, such distinctions might only lead to error and confusion; besides this subject has been in some degree handled by other travellers, whilst the topics with which Mr. Mariner is intimately conversant are those upon which we have hitherto had least information, and to such

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128 we have accordingly thought it best to confine our subject. It is hoped, therefore, that all deficiencies with regard to botany, zoology, and mineralogy, will be thought amply compensated by abundance of information in respect of the religious and political, moral and domestic habits of an interesting portion of the human species, in whose character there is undoubtedly much to be admired, and a vast deal that lays a just claim to our attentive observation.

The specimens of music which are noted down in the second volume, p. 324, I am indebted for to an intelligent friend, who did me the favour to express them upon paper, from Mr. Mariner's voice.

J. M.

27, *Basinghall-street,*
Dec. 1816.

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721 them leave to build a vessel for the express purpose, but in the progress of the work happening unfortunately to notch one of their axes, he refused any longer the use of them.

Thus cut off from all present hopes of escape, it became more than ever necessary to conform their minds to the manners and customs of the people whom they were among; but in a short time the ever changing events of war served to create a degree of activity in the mind, destructive of disagreeable reflections, and fruitless regrets.

128 As we are now about to enter upon a new scene of things, in which the political interests of these islands are particularly concerned, it becomes necessary to afford a general view of their history, from the time of Captain Cook; and particularly for the twelve or fifteen years previous to Mr. Mariner's arrival there, with a view to understand perfectly the state of things as he found it.

175 At the time when Captain Cook was at these
721 islands, the habits of war were little known to the natives; the only quarrels in which they
648 had at that time been engaged were among the inhabitants of the Fiji islands, about 120 leagues to the westward; for having been in the habit of visiting them for sandal wood, &c. they occasionally assisted one or other of the warlike par-

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the three chiefs and their brave warriors were 175
already on their march towards Hihifo. * Their 669
equally brave and determined opponents met 726
them about half-way. Both paused as if instinctively 634
at the same moment. They summoned up their spirits to endure a mighty and bloody conflict: liberty on the one side, loyalty on the other, fired them with the desire of performing matchless achievements. The active and [703]
impetuous mind of Tooi Hala Fatai could brook no delay: anxious to set the glorious example of an heroic spirit, he and his Fiji warriors began the battle by rushing forward on a party of the enemy. Immediately the contest became general, with such unconquerable determination on both sides, that the plains of Tonga had perhaps

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* The following description of the battle is expressed in a [128]
style of language that may be thought not very consistent with the sobriety of historical narration: but I have ventured to do this, because the natives always describe this battle in the strongest terms, as the first and one of the most bloody that ever was fought. On one side were the late king's nearest relations bravely fighting, each in the secret hope of obtaining a kingdom; on the other side were three chiefs of unconquerable spirit, one fighting for dominion, another for his reputation as a patriot, and the third, with a fierce and warlike mind, for the honour and glory of a name, setting his life at no consideration whatsoever. The circumstances of this battle, as here described, are strictly as related by the natives. The language in which it is expressed, is, according to Mr. Mariner's judgment, suitable with the poetic descriptions which he heard of it. From the "Transactions of the Missionary Society" it appears that this battle was fought on the 29th of May, 1799.

727
purpose of procuring reeds to rebuild the 349
fortress of Nioocalofa. This step was taken 712
by the admonition of the gods, who were [787]
consulted on the occasion through the medium
of the priests.

As the invocation of the gods, and inspiration 128
of the priests, are circumstances that will often
occur in the course of this work, it will be well
to take the present opportunity of describing
them.

The night previous to the consultation of the 787
oracle, the chief orders his cooks to kill and prepare [262]
a hog, and to procure a basket of yams,
and two bunches of ripe plantains. These
things being got ready, the next morning they 787
are carried to the place where the priest resides, 793
or wherever he may be at that time: the priest
is sometimes previously apprised of the circumstance,
at other times not. The chiefs and matabooles [292]
clothe themselves in mats, and repair [276]
to the place where the priest is to be found: if
it be at a house, the priest seats himself just
within the eaves*; if at a distance, he seats himself
on any convenient spot of ground, and the
matabooles seat themselves on either hand, so
as would form a circle, or rather an ellipsis, if

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* Their houses are built somewhat in form of a shed, [342]
open all round, and the eaves coming within about four feet
of the ground.

643 kept up a considerable time*. The dancing
585 being over, one of the old matabooles addressed
[533] the company, making a moral discourse on the
[535] subject of chastity,—advising the young men to
[565] respect, in all cases, the wives of their neigh-
[831] bours, and never to take liberties even with
an unmarried woman against her free consent.
The company then rose, and dispersed to their
respective homes. The bride was not present
at this entertainment. Tooitonga being ar-
rived at his house, sent for the bride, who im-
[202] mediately obeyed the summons. The moment
they retired together the lights were extin-
guished, and a man, appointed at the door for
the purpose, announced it to the people by
three hideous yells, (similar to the war whoop,)
which he followed up immediately by the loud
and repeated sound of the conch.

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[128] * Their dances have already been described by Captain Cook and others, the account is therefore omitted here not to interrupt the narrative: for further particulars see the second volume.

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634 764 anguish, never to rise again; then a heart-rending exclamation of sorrow from one spread its contagion to all the rest; and thus was the whole night spent in lamentations for the death of a good and great man; who, as far as human judgment can determine, was unjustly accused, and undeservedly sacrificed.

During all this time, the chiefs and warriors of the king kept themselves on the alarm, expecting every moment a revolt from the people of Toobó Nuha. Every thing, however, re-
[484] mained quiet. The following morning Finow issued orders for the body to be carried on board a canoe along with him, to proceed to the island of Wiha; this was accordingly done, and they set sail, sixty or seventy other canoes following, with the Vavaoo people, and several of the king's warriors. When they arrived at Wiha, a grave was opened for Toobó Nuha in the *fytoca*[*] of his ancestors, wherein his body was deposited in the presence of all who came in the canoes, besides a considerable number of the natives of the island[†].

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[*] Fytoca, a burying-place, including the grave, the mount in which it is sunk, and a sort of shed over it. The grave of a chief's family is a vault, lined at the bottom with one large stone, one at each side, and one at the foot and head, and is about eight feet long, six feet broad, and eight feet deep, covered at the top with one large stone.

[128] [†] The ceremony of this burial is omitted, as being similar

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As soon as the corpse was let down into the grave, one of those who had assassinated him, Chioolooa, a great warrior and a powerful man, advanced forward into the middle of the circle, brandishing his club, and addressed the Vavaoo people to the following effect: "If there be "any among you harbouring secret thoughts "of revenge, keep them no longer buried in "your bosom, meditating plans of future insurrection, but come now forth and fight me on "the spot, for by sacrificing me, you will revenge his death: I am the man who acted a "principal part in his death; come on, then, "one and all, and wreak your vengeance on "my head!"—Nobody, however, accepted this challenge; not but there were many Vavaoo chiefs who would willingly have done it, had they not thought better to reserve themselves, to effect a future and more signal vengeance. The stone was now put over the grave, and the company dispersed. 634 764

During the whole of this time, in consequence of Finow's orders, every circumstance was attended to that might prevent an insurrection on the part of the Vavaoo warriors. The four carronades which Finow had brought with him were drawn up before the fencing in 669

to, though not quite so formal, as what will be described hereafter on the occasion of Finow's death. [28]

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CHAPTER XI.

Arrival of a canoe from the island of Tonga, bringing a 000
chief and two young matabooles, with a petition from Toobo Malohi: they give an account of the late transactions there, viz. Teoo Cava, chief of Hihifo, being joined by the chiefs and men that formerly belonged to Nioocalofa, makes an attack on the fortress of Noókoo-Noókoo, and takes it: the enemy return in the night, and set fire to it—Teoo Cava, making his escape, is stopped and killed by a Fiji islander—Conduct of Ata in the defence of Hihifo, and the bravery of Máccapápa—Grief of Teoo Cava's widows for his loss—Reference to an anecdote in the missionary voyage respecting Eliza Mosey (note)—Petition of Toobó Malóhi and his chiefs to Finow: their reception by him, and ceremony of pardon—Toobo Malohi's conversation with Finow, and his ultimate departure for the Hapai islands.

Soon after Cow Mooala's arrival from the Fiji 669
islands, Finow received intelligence from Toobo 727
Toa (chief of the Hapai islands) that a canoe 728
had arrived at Lefooga, from the island of 643
Tonga, with a chief, and two young matabooles. [484]
They came to petition Finow for pardon, in behalf of a great chief, named Toobó Malohi, elder brother of Toobo Toa, who had been long resident at the island of Tonga, and had defended the cause of Finow's enemies.
As this chief brought very interesting information 728
of all the recent events at the island of

128 Tonga, we shall give an account of these trans-
actions in the order in which they happened, and
conclude with the ceremony of pardon, granted
by Finow to Toobo Malohi and his followers.

The reader will recollect, perfectly well, the
669 fortress of Nioocalofa, on the island of Tonga,
727 which Finow besieged with the four carronades,
649 and afterwards burnt to the ground, with great
[726] slaughter of the garrison. Toobo Malohi was
chief of this fortress at the time; and in conse-
quence of Finow's vigorous attack, he left it,
with such of his followers as could save them-
selves, and fled up the country, to seek refuge
[167] in some other fortress. This chief had all
along been unfortunate: at the time of the
[177] great revolution of Tonga, and the early success
of Finow, he had fled to the Fiji islands with
his followers, and had resided there some time;
[166] gaining experience in the art of war. On his
return to Tonga, he built the fortress of Nioo-
calofa; from which he was afterwards driven
by Finow, as just related: he next took refuge
in some other fortress; from which, owing to
the jealousy of the chief, or some other cause,
he was obliged to depart, and seek shelter in a
third; from whence he was driven by some un-
toward circumstance; and thus he became, in
fact, quite a refugee; nobody being willing to
receive him in a sincere and friendly way: till

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"*we listen to the idle talk of a boy?* Recollect, 634
"whilst I speak to you, my voice is the echo 537
"of the sentiments of Toe Oomoo, and Oooloo- 829
"valoo, and Afoo, and Fotoo, and Alo, and all 765
"the high chiefs and matabooles of Vavaoo.—
"Listen to me! I remind you that if there be "any among you discontented with this state "of affairs, the present is the only opportunity "I will give to depart: for let pass this occasion, and not at all shall we communicate "with Hapai. Choose therefore your dwelling-places; there is Fiji, there is Hamoa, there is "Tonga, there is Hapai, there is Fotoona and "Lotooma!—Those men in particular having "minds unanimous, loving to dwell in constant "peace,—they alone shall remain at Vavaoo "and its neighbouring isles. Yet will I not "suppress the bravery of any one warlike spirit:—Behold! the islands of Tonga and Fiji "are constantly at war; let him there display "his courage. Arise! go to your respective habitations; and recollect, that to-morrow the "canoes depart for Hapai*."

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* For the original of this fine speech, and a literal translation, see the latter part of the grammar. Mr. Mariner had in [128] a manner learnt it off by heart, for it was so universally admired that it was in every body's mouth for a long time after. The above version will be found somewhat different from the one in the first edition, and the reason is I did not at that time feel so well the force and strength of the Tonga idiom.

634 timents of these young chiefs, to prevent the
discontent and disturbance which might otherwise
486 take place. The canoe was now ordered
661 to leave Vavaoo for the last time, and never
357 more to return, for if she or any other canoe should again make her appearance from Hapai, her approach would be considered hostile, and proper measures would accordingly be adopted. At this moment, the women on the beach earnestly petitioned Finow to be allowed to take a last farewell of their dear and beloved mistress, which on being agreed to, nearly two hours were taken up in this affecting scene.

From this time Finow devoted his attention
634 to the cultivation of the island; and the exertions
241 of this truly patriotic chief were so far successful
712 that the country soon began to promise the appearance of a far more beautiful and cultivated state than ever: nor did he in the mean time neglect those things which were necessary for the better defence of the place, and accordingly the fortress underwent frequent examination and improvements.

In the midst of these occupations, however, a
578 circumstance happened which might have been
[577] the cause of much civil disturbance. It is well worth relating, as it affords an admirable character
[128] of one of the personages concerned, and shews a principle of honour and generosity of

mind, which must afford the highest pleasure 578
to those who love to hear of acts worthy the 577
character of human nature. On one of the 128
days of the ceremony known by the name of
tow tow *, which is celebrated on the malái, 578
with wrestling, boxing, &c., a young chief, of 526
[796] the name of Talo, entered into a wrestling-match with Hala Api Api (the young chief who, as may be recollected, was mentioned on the occasion of Toobó Nuha's assassination). It should however be noticed, that a few days before, these two had held a debate upon some subject, in which neither could convince the other. It is usual on such an occasion, to prevent all future fruitless argument upon the same topic, to settle the affair by wrestling: not that this mode is considered in the light of a knock-down argument, perfectly convincing in its nature, but it is the custom for those who hold a fruitless contention in argument, to end the affair the next opportunity, by a contention in physical strength, after which the one who is beaten seldom presumes to intrude his opinion again on the other, at least not upon the same subject. Hala Api Api therefore challenged Talo on the spot. For a long time the contest

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* An offering to the god of weather, beginning at the time [782]
when the yams are full grown, and is performed every tenth [241]
day for eighty days.

crews being so weakened, might be taken (as they 721
supposed), with ease. The entertainment was 175
prepared, and Captain Cook and several officers 723
being invited were present; it happened, how- 634
ever, a little before the appointed time when the
signal was to be given, that most of the chiefs
still expressed their opinion that the night-time
would have been better than the day, and Fi-
now, finding that the majority were of this opi-
nion, was much vexed, and immediately forbad
it to be done at all. Thus, no signal being
given, the amusements went on without inter-
ruption, and Captain Cook and his officers were
much pleased with their entertainment, acknow-
ledging it to be far better than any other that
they had received at the Friendly islands. (See
his third voyage.) Mr. Mariner had this informa- [727]
tion at different times from several chiefs who [724]
were present, and in particular from Finow him-
self, (the father of the present king, and son of the
chief who was at the head of the conspiracy.)

As every information must be interesting 728
which regards the history or fate of this great
and good man, to whom society owes so much,
we cannot omit mentioning some circumstances,
subsequent to his death, upon which the above
anecdote so naturally leads the mind to reflect.
The people of the Tonga islands behaved to- 723
wards Cook with every external demonstration 175
171

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ROBERT BROWN, Cooper; THOMAS DAWSON, Seaman; 127 THOMAS BROWN, Landsman; MANUEL PEREZ, Seaman; JOSEF, a black.—These came away with Mr. Mariner in the Favourite; all but Thomas Brown were under the necessity of remaining in the East Indies. Thomas Brown got employment on board one of the homeward-bound vessels from China, and came to England in the same fleet with Mr. Mariner. Thomas Dawson has since been in London.

Mr. Mariner regrets very much not being able to furnish dates; his only method of keeping time was by cutting certain notches on certain trees (unknown to any one,) but even with such rude memoranda, he was only out in his calculation one day at the time of the Favourite's arrival.

In the ensuing pages, we shall endeavour to 128
furnish a correct view of all the manners, customs, and sentiments of the Tonga people, that have not been mentioned, or sufficiently dwelt upon in the foregoing part of the work, and which it is hoped will be found exceedingly interesting, as offering a striking contrast to the manners, customs, and sentiments of civilized nations; and upon these subjects we shall speak in the following order: viz. Rank in society, religious, civil and professional; religion; religious ceremonies; knowledge; dress; domestic habits; pastimes; music and poetry; and lastly, language.

CHAPTER XVII.

000 **Preliminary observations—Rank in society—Tooitonga—Veachi—Inspired priests—The king—Nobles—Order of succession to rank—Matabooles—Mooas—Tooas—Professional classes of society, hereditary and otherwise—Table of the order of professions—Succession to property—Old age—Female sex—Wives of chiefs—Adopted mothers—Concubines of chiefs—Arts practised by women—Children.**

128 The rank or estimation in which individuals are held in society at the Tonga islands may be most conveniently treated of, first, under three different points of view, viz. religious, civil, and professional, with reference to their mythology, political subordination, and their arts and manufactures; and secondly, with reference to old age, female sex, and infancy. In this chapter, we propose to speak merely of rank in society, and the degree of respect due from one man to another; all which is determined in regard to every individual, by one or other, or more of the foregoing circumstances, mythology, politics, arts, age, sex, and childhood.

565 554 To divide society into distinct classes, and to discourse of the degree of rank or respect accruing to individuals, accordingly as they may

belong to one or other of these classes, would 565
be a task very difficult to execute, and perhaps 554
impossible in respect to the people of these
islands; at least, not without making numerous
exceptions and explanations, which would only
be the means of rendering the description both
tedious and complicate. For one and the same [793]
individual, (a priest,) who to-day is held in [787]
scarcely any estimation, may to-morrow, (under
the influence of the inspiration of some god,)
take place of every body present, seat himself
at the head of the cava ring, be respected as
the god himself, and his discourse attentively
listened to as oracular. Again,—the king him- [634]
self, whom one might suppose to be the greatest
person in the country, (and in fact he has the
greatest power,) is by no means the highest
noble, but must yield in point of rank to many
others. In this order of things, therefore, we 128
shall first speak of those persons to whom rank
and respect is yielded, on the score of religious
circumstances; and these are Tooitonga, Veachi,
and the priests.

We here speak of Tooitonga as if actually 643
existing in his full rank, with all the public
honours of religious estimation; but it will be
recollected, that before Mr. Mariner's departure
from Vavaoo the king had done away entirely
with all the ceremonies formerly considered

Hereditary.	*Toofoonga fo vaca;* canoe-builders.	Followed both by *mataboolés* and *mooas.*	555 461
	Toofoonga fono k; cutters of whale-teeth ornaments.		565 [396]
	Toofoonga taboo; superintendants of funeral rites.		[306]
	Toofoonga ta maca; stone-masons, or makers of stone vaults.	Followed both by *mooas* and *tooas.*	[767] [324]
	Toofoonga jia cobenga; net-makers.		[286]
	Toofoonga toty ica; fishermen.		[226]
	Toofoonga langafalle; large house-builders.		[331]
Hereditary or not.	*Toofoonga ta tattow;* those who perform the tattow.		[305]
	Toofoonga tongi acow; club-carvers.		[322]
	Toofoonga fy cava; barbers or shavers with shells.	Followed only by *tooas.*	[306]
Hereditary.	*Tangata fe oomoo;* cooks.		[252]
	Ky fonnooa; peasants.		[241]

Property in these islands, as may easily be 421 conjectured, consists principally in plantations, 428 houses, and canoes, and the right of succession to it is regulated by the order of relationship, as given under the head of Nobles, p. 83, so in like manner is the right of succession to the throne.

Having now given a view of the rank of indi- 128 viduals in society, with reference to religion, civil government, and professional occupations; we have now to consider it in respect to old age, sex, and childhood.

Old persons of both sexes are highly reve- 888

793 their being priests, unless when actually inspired,
787 and hold no known conferences together,
171 as an allied body. Mr. Mariner frequently associated
554 with them, knew their general conduct,
and inquired the opinion of all classes of the
727 natives respecting them; and, after all, has no
124 reason to think that they combine together for
the purpose of deceiving the people. He found
nothing that he conceived very remarkable in
their general character: if there was any difference
between them and the rest of the natives,
it was that they were *rather* more given
to reflection, and somewhat more taciturn, and
probably greater observers of what was going
292 forward. They have no peculiarity of dress to
distinguish them. The most remarkable of their
793 prophecies, if they deserve that name, are those
787 mentioned vol. i. on the occasion of a young
chief being inspired by a female spirit from Bolotoo;
and on that of the illness of Finow and
his daughter, when one became better the other
793 became worse, as the priest foretold. The priests
565 associate with the chiefs as much as other matabooles
643 and mooas; and, although Tooitonga
and Veachi are considered divine chiefs, still
they have no more to do with the priests, nor
are they any otherwise connected with them,
nor related to them, than are other chiefs.

128 Having thus far given a general view of the

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religious opinions of the Tonga people, and an 128
account of the habits of their divine chiefs and priests, we shall proceed to unfold, with as much accuracy and impartiality as possible, their notions and habits of morality; and in another chapter conclude the subjects connected with religion, by a detail of their religious ceremonies.

Moral virtue will appear to have a very 577
slender foundation in these islands, when we 192
consider that the natives believe in no future [775]
place of reward, but what a man will equally possess, whether he live virtuously or not, and that they have no idea of a future state of punishment of any kind or degree whatsoever; and our opinion of their notions of moral virtue will not be much exalted, when, on a strict examination of their language, we discover no words essentially expressive of some of the higher qualities of human merit, as virtue, justice, humanity; nor of the contrary, as vice, injustice, cruelty, &c. They have indeed expressions for these ideas, but they are equally applicable to other things. To express a virtuous or good man, they would say *tangata lillé*, a good man, or *tangata loto lillé*, a man with a good mind; but the word *lillé*, good (unlike our word virtuous), is equally applicable to an axe, canoe, or any thing else: again, they

181 say, that the natives of these islands are rather
831 to be considered a chaste than a libertine people,
171 and that, even compared with the most civilized
nations, their character in this respect is to be
rated at no mean height; and if a free intercourse
could exist with European society, it is
a matter of great doubt (whatever might be the
change in their sentiments), if their habits or
dispositions in this respect would be much improved
by copying the examples of their instructors.
If, on the other hand, we compare
them to the natives of the Society islands, and
the Sandwich islands, we should add insult to
injustice.

We have thus endeavoured to give a just and
128 impartial view of these people, as far as regards
their notions and practices of the most important
points of morality, trusting that the account
will be found useful and interesting. A
great deal more might, no doubt, have been
said; but the farther we enter into minutiæ
upon such a subject, the more we are likely to
form an erroneous opinion; whilst the general
outlines may be given without so much danger
of being deceived; and what may be thought
imperfect in this sketch, the intelligent reader
will be able to supply according to his own
judgment, by his attentive perusal of other
[266] parts of the work. If, for instance, it be ob-

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jected that we have not taken into consideration the question of their being anthropophagi, we reply, that all the instances that can any way go to substantiate their character in this respect, and which happened during Mr. Mariner's stay there, have been faithfully mentioned, with the motives and occasions of them: from which, we think it is easy to draw the conclusion, that they by no means deserve this opprobrious name: for, although a few young ferocious warriors chose to imitate what they considered a mark of courageous fierceness in a neighbouring nation, it was held in disgust by every body else. 128
266

CHAPTER XX.

000 **Preliminary observations—Cava root: ceremony of preparing the infusion, and order of serving it out, either as a chief, a priest, or a god may preside—The ceremony of *Inácki*; of *Fuccaláhi*; of *Cava fucca égi*; of *Tow-tow*; of *Nawgía*; of *Tootoonima*; of *Boótoo* and its minor ceremonies, viz. *Fála, Toótoo, Láfa, Toógi, Fóa Oóloo*; with a quotation from Leviticus; of *Langi*, and the very singular mode of shewing respect to the remains of *Tooitónga*;—of *Táboo* and the ceremonies of *móë-móë* and *fóta* of *Toógoo cava*; of *Lótoo*—Omens—Charms.**

784 [128 As attention to religious ceremonies forms an important feature in the character of the Tonga people, and as they consider that any neglect in this respect would amount to a crime, which the gods would punish with the most severe temporal inflictions, it becomes necessary to give a particular account of them. The punishments which they consider themselves liable to for disrespect to the gods and neglect of religious rites are chiefly conspiracies, wars, famine, and epidemic diseases, as public calamities; and sickness and premature death, as punishments for the offences of individuals: and these evils, whenever they happen, are supposed to proceed imme-

diately from the gods, as visitations for their 784
crimes.

There is no public religious rite whatsoever, 276
and scarcely any in private, but of which the 574
ceremony of drinking cava forms a usual and 128
often a most important part; for which reason, although cava is taken on other occasions several times daily, we shall endeavour to give a full description of its preparation and form of distribution, before we proceed to those ceremonies which are more strictly religious.

The root which they term cáva, and by 276
which name the plant producing it is also [192]
called, belongs to a species of the pepper plant: [197]
it is known by the same name at the Fiji islands; but at the Navigator's islands, (which the Tonga people also visit), at the Society islands, and the Sandwich islands, it is universally called
ava. At all these places it is used for the same [171]
or similar purposes.

The state in which it is taken is that of infu- 276
sion: it is drunk every day by chiefs, mata- 574
booles, and others, as a luxury: the form of
preparing and serving it out is the same, whether [565]
at a large party or a small one: the greatest order is observed during the whole time, and the rank of persons is particularly attended to. The following description we shall suppose to be of some grand occasion, either religious or

has the first cup; the presiding mataboole, 276
not actually officiating, has the second; the 574
third, fourth, fifth, and perhaps sixth cups, are 565
given to the next higher persons in the superior 576
circle; and then the chiefs who have retired to 796
the exterior circle are, out of respect, helped;
but this rests at the option of the officiating
mataboole; afterwards the remainder of the
superior circle are served.

At smaller cava parties, the forms and words 276
of ceremony are precisely the same; but when 574
a priest does not preside, familiar conversation,
and even joke and merriment, are indulged
in. On all occasions every individual pays the [291]
greatest attention to his dress, that it be decorous
and well tied on, that is, with neatness*.

We have been particular in the description of 796
the ceremony of preparing and drinking this in- 128

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cup was actually filled and presented to the god: thus, [776
before any cup is filled, the man by the side of the bowl says, 778]
Cava gooa hěca, The cava is deposited (in the cup): the mataboole answers, *Angi ma ho egi,* Give it to your god; but this is mere form, for there is no cup filled for the god.

* Some of our readers will perhaps find some difficulty in believing this, but nothing is more true than that the Tonga people of any degree of rank are very particular in regard of their personal cleanliness and neatness of dress; insomuch that a man will often refuse to join a neighbouring cava party, because the *gnatoo* which he happens to have on may not be so new or so good as he could wish.

276 fusion, because it sets in so strong a light the
574 manners and customs of the people, and be-
796 cause it so frequently accompanies almost every
kind of religious ceremony. It is not pretend-
● 128 ed, however, that drinking cava is essential to every religious ceremony, or to most of them, but that it is the custom to take it generally on such occasions. These religious ceremonies we shall now describe, and shall take them nearly in the order in which, by the natives, they are considered of most importance, or most sacred; viz. *Inachi; Fúccaláhi; cáva fúcca egi; Tow-tow; Nawgía; Tootooníma; Boôtoo; Langi; Taboo; Fôta; Möë-möë; toôgoo cava.*

Although the ceremony of *inachi* was entirely
651 abrogated by Finow just before Mr. Mariner
796 left Vavaoo, we place it first in rank, because it
[634] always used to be considered of the utmost importance before it was done away with; besides which, it was a ceremony which affected the property of every individual in Vavaoo, and al the Hapai islands, and formerly in the island of Tonga also.

Inachi. This word means, literally, a share
[642] or portion of any thing that is to be or has been distributed out: but in the sense here mentioned it means that portion of the fruits of the earth, and other eatables, which is offered to the gods in the person of the divine chief Tooitonga, which

782 ing performed several times on the same finger, 755 in case a man has many superior relations.

602 BOOTOO, or funeral ceremonies. For a partial 764 description of these, reference may be made to the burial of Toobó Nuha; (Vol. I. p. 141.) for a particular one, as it regards the burial of [128] a king, to that of Finow, (chap. 13.)[A] What remains, therefore, principally to be described, are the peculiarities attending the burial of Tooitonga: in the first place, however, we shall give the names of the different parts of the ceremony of burials in general; the modes of all which have been already related in the instance last referred to: the names are these.

FALA, or procuring small stones, (white and black), and sand, to cover the grave.

TOOTOO, or burning the persons of the mourners in spots, with lighted rolls of *tápa*.

LAFA: burning the arm in about six places, each in form of five or six concentric circles.

TOOGI: beating the cheeks, and rubbing off the cuticle, with cocoa-nut husk, or some sort of plait, wound round the hand.

FOA OOLOO: wounding the head, and cutting the flesh in various parts, with knives, shells, clubs, spears, &c. in honour of the deceased, and as a testimony of respect for his memory and fidelity to his family.

A [See 2: Mariner, cat. 116, pp. 379-444--Analyst]

CHAPTER XXI.

Introductory observations on the state of the healing art in 000 these islands—Their surgical knowledge borrowed from the Fiji islands—Medical skill of a Sandwich islander—The operation of *cawso*, with a case described; regimen; precautions against tetanus—Two cases of tetanus cured by the operation of *tocolosi*—Operation of *boca*, or castration: a man castrates himself—Fractures and luxations—Topical bloodletting—Opening abscesses—Burning and blistering—Friction—Scarification of the tunica adnata—Gun-shot wounds—Amputation—Circumcision—*Ta tattów* at the Tonga islands; at the Fiji islands—The diseases called *cahi* and *palla*—Gonorrhœa—Observations respecting the existence of syphilis at these islands—Gonorrhœa cured by fright in three individuals—*Tona*, a disease similar to the yaws—An eruption on the feet called *gnówooa*—*Fooa*, or elephantiasis—*Momoco*, or general wasting of the flesh—*Feke-feke*, a species of irregular intermittent.

Having, in the three preceding chapters, 128 given an account of the state of religion and morals in these islands, we shall now proceed to develope the next most important feature in the description of human habits, and shall therefore endeavour to set forth the state of useful knowledge to which they have arrived. In the first place, we shall treat of the healing [755] art; not only because it stands prominent in [782]

128 the general history of human science, but because,
755 in all early stages of society, it appears
782 to have a particular connexion with, and often to depend entirely upon, certain religious ceremonies; nor is this to be wondered at, for, seeing that the operations of the animal œconomy are so far involved in mystery, as frequently to escape the scrutinizing search of the most cultivated mind, how can it be otherwise but that a people, among whom the sources of knowledge are scanty, and the opportunities of experiment on the animal œconomy both rare and hazardous, should look to the gods for relief from those miseries which evidently proceed from an unseen hand: a considerable portion of the curative means of these people are, therefore, very naturally, *invocation* and *sacrifice*.
752 Nevertheless, as the animal œconomy is subject to a variety of accidents, the causes and operations of which take place, and pursue their progress, more or less, under the evidence of the external senses, appropriate means of cure are frequently had recourse to, and operative surgery is therefore not in a contemptible state of cultivation.

All the remedies practised among them may
757 very safely be ranked under these three heads,
782 viz. invocation, sacrifice, and external operations;
755 as to internal remedies, they sometimes,
752

757 remedies twice with very good effect, which
171 encouraged some others to try; but as these
727 circumstances took place only a short time before Mr. Mariner left, and consequently only a few trials had been made, we ought not to speak of them as constituting the medical knowledge of the Tonga people; but as this Sandwich island chief was a man of considerable judgment, and, as Mr. Mariner has every reason to think, a good observer, we indulge the hope that no ill success, at an early period, has destroyed confidence in the adoption of two such useful remedies.

755 The ceremonies of invocation in behalf of
782 sick people have already been described in the account of the sickness of the late king's daughter: the sacrifices adopted on similar occasions are *tootooni'ma* and *nawgia;* cutting off fingers and strangling children: these also have both been described; the latter is only done for very
128 great chiefs. We shall now proceed to speak of their operative surgery, and constitutional diseases, as far as Mr. Mariner's observation can lead him to speak with accuracy.

752 No native of Tonga undertakes to practise surgery unless he has been at the Fiji islands,
177 where constant wars afford great opportunities of becoming skilful; and no native of Tonga would employ a surgeon who had not been

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CHAPTER XXIII.

General habits of chiefs, matabooles, mooas, women and 000
children—Quotation from Cook's Voyages, affording a very correct view of their public festivals and rejoicings in honour of illustrious visitors, and describing very accurately their boxing and wrestling matches, and sundry dances: the whole including a point of time when Captain Cook and his companions were to have been assassinated by the natives—An account of their different dances and songs—Specimen of their songs in rhyme—Specimens of their music—An account of their various sports and games—The pastimes of a day, with an account of an extraordinary character—Conclusion.

UNDER the head of religion, we have given a 128
cursory view of the general habits of Tooitonga, Veachí, and the priests: we shall now set forth, in a similar manner, those of the rest of society, as they regard chiefs, matabooles, mooas, tooas, women and children.

Respecting the general habits of chiefs, matabooles, 565
and mooas; the higher chiefs seldom 571
if ever associate freely together, unless at the 276
morning cava parties, and those meetings are 574
to be considered, in a great measure, as visits of
custom and form. The matabooles and mooas [576]

562 that the women are by no means slaves to the 565 men; it is, that the female chiefs are allowed to imitate the authority of the men, by having their *cow-fafi'ne*, as the male chiefs have their *cow-tangata:* their *cow-fafi'ne* consists of the wives and daughters of inferior chiefs and matabooles, and it may be easily conceived that such an association tends to support their rank and independence.

● 128 The subject we are now treating of naturally leads us to speak of the more domestic habits and manners of the people; but these may be considered in two points of view; first, on the grand and extensive scale, such as they are presented to foreigners, by way of shewing themselves off to the best advantage; and secondly, in their more familiar, true, and unreserved state. [114] With respect to the first, it would be difficult to give a more correct and descriptive account than has already been given in Cook's Voyages, written principally by Mr. Anderson, and which we shall beg leave to quote, first, out of respect to its accuracy, and secondly, because it involves a most interesting point of time, that in which the natives had come to the resolution of assassinating Captain Cook and his companions, as mentioned in page 60 of this volume. Those places which require

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[May 18, 1777]

explanation we shall elucidate by notes. The 128
date of the following circumstances is the 18th
of May, 1777.

"Next morning early, Feenow and Omai, 175
"who scarcely ever quitted the chief, and now 648
"slept on shore, came on board. The object "of their visit was to require my presence "upon the island. After some time, I accompanied them; and upon landing was conducted to the same place where I had been "seated the day before, and where I saw a "large concourse of people already assembled. "I guessed that something more than ordinary "was in agitation, but could not tell what, nor "could Omai inform me.

"I had not been long seated before near a 175
"hundred of the natives appeared in sight, 648
"and advanced laden with yams, bread-fruit, 491
"plantains, cocoa-nuts, and sugar-canes. They "deposited their burdens in two heaps or piles, "upon our left, being the side they came from. "Soon after arrived a number of others from "the right, bearing the same kind of articles, "which were collected into two piles on that "side. To these were tied two pigs and six "fowls, and to those upon the left six pigs and "two turtles. Earoupa seated himself before [651]
"the several articles upon the left, and another "chief before those upon the right, they being,

[May 18, 1777]

" this present far exceeded any I had ever 175
" received from any of the sovereigns of the 648
" various islands I had visited in the Pacific 431
" Ocean. I lost no time in convincing my
" friend that I was not insensible of his liberali-
" ty; for before he quitted my ship I bestow-
" ed upon him such of our commodities as I
" guessed were most valuable in his estimation.
" And the return I made was so much to his
" satisfaction, that as soon as he got on shore
" he left me still indebted to him, by sending
" me a fresh present, consisting of two large
" hogs, a considerable quantity of cloth, and
" some yams."

Here follows an *imperfect* account of the 128
dance called *mêë too bu'ggi*, but which we shall
now omit, and quote a fuller description of it
afterwards. Other circumstances not necessary
here to enumerate are also omitted. After describing an exhibition of fire-works, the account goes on thus:

" Our water and sky rockets, in particular, 175
" pleased and astonished them beyond all con- 648
" ception; and the scale was now turned in
" our favour. This, however, seemed only to [535]
" furnish them with an additional motive to
" proceed to fresh exertions of their very sin- [545]
" gular dexterity, and our fire-works were no
" sooner ended than a succession of dances

tigued with walking, or any other exercise, he [75]
lies down, and some of his attendants come and [565]
perform one of the three following operations upon him, viz. *toogi-toogi*, *mili*, or *fota*, i. e. being gently beaten upon, or having the skin rubbed, or having it compressed: these several operations are generally performed about the feet and legs; the first by constant and gentle beating with the fist; the second by rubbing with the palm of the hand; and the last by compressing or grasping the integuments with the fingers and thumb. They all serve to re- [462]
lieve pain, general lassitude, and fatigue; they are mostly performed by the wives or female domestics of the party; and it is certain that they give very great ease, producing a soothing effect upon the system, and lulling to sleep. Headach is found to be greatly relieved by compressing the skin of the forehead and the scalp in general. Sometimes, when a man is much fatigued, he will lie on the ground whilst three or four little children trample upon him all over; and the relief given by this operation is very great.

. . . .

Such is the history of the politics, religion, 128
and knowledge,—and the manners, customs, 104
and habits of the people of the Tonga islands; and all that remains now to be done is to furnish an account of their language: for this pur-

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128 pose we have constructed a grammar and dictionary, or, at least, an extensive vocabulary,
104 which contains, it is presumed, more than eight-tenths of the genuine Tonga words, accentuated as they are pronounced by chiefs and those who think it an honour to speak correctly. The greater part of those words which are omitted are such as may be termed technical, belonging to their arts, and which, therefore, are easily forgotten, as expressing objects and actions which Mr. Mariner is no longer accustomed to: at the same time it must be confessed that there are a few other objects which are more familiar, but of which, also, by an unfortunate lapse of memory, the Tonga is forgotten; among these we may mention the rainbow, the word for which Mr. Mariner has in vain endeavoured to recover: but these are imperfections to which all human endeavours are liable. If it be asked, what is the use to us of a grammar and dictionary of the language of an uncivilized people, with whom cultivated nations have so little concern, the answer is, that as the structure of their speech forms part of the history of the human mind, it may be found in some degree interesting to the philologist, and still more so to the philosopher:

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Tongan Place Names

By Edward Winslow Gifford

INTRODUCTION

One avenue of approach to the problem of the origin and migrations 121
of the Polynesians lies in a careful study and comparison of place names
from various parts of Polynesia. With large series of names from the
several groups of Polynesia it will be possible to put the comparison on a
firm statistical basis. Moreover, if it were found that Tonga had eighty
per cent of her place names in common with Samoa and forty per cent in
common with New Zealand, the closer connection with Samoa would be
self evident. With large series of place names in hand it will become
possible therefore to work out the ethnogeographic interrelations of each
Polynesian group with all other Polynesian groups. It is hardly necessary
to point out the value of these data in defining the movements of the
Polynesian peoples. Until the expeditions of the Bishop Museum in the
Pacific have been completed it is premature to attempt a comparison on a
statistical basis as suggested above. Consequently, the present paper presents 128
the Tongan data without attempting a detailed comparison with
other groups of Polynesia. Tongan intrarelations alone are studied. Four
thousand seven hundred and seventy-six place names, utilized for more
than eight thousand two hundred locations, are presented. These have
been studied as to geographic distribution and frequency of occurrence in
different parts of the Tongon archipelago. One aim of this study is to 121
determine if possible the direction of movement within the archipelago—
that it, whether from north to south or from south to north.

Several thousand place names were obtained from the records in the 127
Tongan Lands Office, which were courteously put at my disposal by the
Honorable William Tungi, Minister for Lands. Mr. A. B. Wallace,
Minister for Works, gave me access to the maps showing the location of
hereditary lands in the Kingdom. The Reverend E. E. V. Collocott sent
me in 1922 a list of names from the island of Niuafoou, which corroborated
the Niuafoou list I made in Nukualofa (the capital of Tonga) and furnished
forty new names.

For the translation of place names I am indebted to several residents 114
of Tonga; namely, Mrs. May Laurence, Mr. Solomon Ata, Mr. August
Hettig, Miss Beatrice Shirley Baker, Mr. Alphonse J. Gaffney, and Mr.
William Tungi. The translations have been studied by the author with 127
the aid of two excellent dictionaries of the Tongan language, one compiled

[p. 3]

127 by the Catholic Missionaries of the Marist Brotherhood[1] and the other by the Rev. Shirley W. Baker.[2]

104 With one exception the Tongan orthography followed in this paper is that set forth on pages 1 and 2 of the Dictionnaire Toga-Francais. Sixteen symbols in all are used, of which five represent vowels and eleven consonants. The vowels are *a, e, i, o,* and *u* and the consonants are *f, h, k, l, m, n, ng, p, s, t,* and *v. Ng*[2a] is used in this paper in place of the *g* employed in both the Dictionnaire Toga-Francais and in Baker's Dictionary.

114 Baker's Dictionary differs from the Dictionnaire Toga-Francais in using both *b* and *p* instead of *p* alone; and *s* and *j* instead of *s* alone.

127 128 Owing to the fact that practically all of the place names presented in this paper are drawn from government records, charts, and various Tongan manuscripts and are recorded in varying orthographies and largely without diacritical marks, it is impossible to consistently indicate by diacritical marks the exact pronunciation of each word. For particulars concerning Tongan phonetics the reader should consult the dictionaries.

THE TONGA OR FRIENDLY ISLANDS

131 The group named the Friendly Islands by the famous navigator Cook lies between the parallels of 15° and 23° south latitude and between the 173rd and 176th meridians west of Greenwich.

103 The name Tonga as applied to the whole group is derived from the name of the largest island of the group, generally known as Tongatabu.[3]

133 [131] With the exception of the outlying volcanic island of Niuafoou approximately in latitude 16° S and longitude 176° W, the islands of the Tongan archipelago lie in two parallel chains stretching from north to south. The eastern chain is of coral formation. The western chain is volcanic.

The eastern chain includes more than one hundred islands, most of them low-lying—in fact, little more than uplifted coral reefs. They are exceedingly fertile and bear the great bulk of the Tongan population.

The western volcanic islands are not numerous. They are from south to north: Ata (1165 feet elevation), the twin islands of Hunga Tonga and Hunga Haapai (respectively 490 and 400 feet elevation), Tofua (1670

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[113] [1] Missionnaires Maristes, Dictionnaire Toga-Francais et Francais-Toga-Anglais. Precedé d'une Grammaire et de Quelques Notes sur L'Archipel par les Missionnaires Maristes, revu et mis en ordre par le P. A. C. s.m. Publication de l'oeuvre de Saint-Jerome, Librairie-Editeur, Paris. Chadenat, 1890.

[113] [2] An English and Tongan Vocabulary, also a Tongan and English Vocabulary, with a list of Idiomatic Phrases; and Tongan Grammar, Auckland, N. Z., 1897.

[3] The spelling Tongatabu has been unfortunately adopted by official geographic boards and gazetteers. The correct orthography is Tongatapu.

[2a] In the arrangement of the gazetteer, *ng* follows *n*.

feet elevation), Kao (3380 feet elevation), Late (1700 feet elevation), 133
Fonualei (600 feet elevation), Niuatoputapu (350 feet elevation), and Tafahi (2000 feet elevation).

Two of the coralline islands are quite elevated; Eua attains the height of 1070 feet and Vavau the height of 670 feet.

Most of the Tonga islands fall both politically and geographically into 133
three divisions. From south to north they are the Tongatabu group, the 101
Haapai group, and the Vavau group. Geographically these groups embrace only the coral islands, but politically Kao and Tofua are parts of Haapai, and Late is a part of Vavau, though all three are volcanic and lie thirty or forty miles west of Haapai and Vavau proper.

The southernmost portion of the Haapai group is cut off from the main 133
portion by about ten miles of deep water. It is often dignified geographically with the term Nomuka group. It is here treated, however, as a portion of Haapai. [128]

TONGAN GEOGRAPHIC POEMS

Tongan poets are much given to the composition of verses dealing entirely with Tongan geography; in fact, the feeling for the beauties of nature is one of the marked cultural characteristics of the Tongan people. 538 181
Martin[4] has published two such compositions, and a number of poems dealing with the islands of the Tongatabu, Haapai, and Vavau groups are presented in the following pages of this paper. 128

"Koe Otu Motu o Haapai" is a fragment of ancient verse evidently expressing the feeling of monotony which had overcome the poet, after a long 539
sojourn on the small and low island of Lifuka in the Haapai group. With the high volcanic islands of Tofua and Kao in sight to the westward his appetite for wandering got the best of him. 539 133
He at last obtained surcease for his feelings by sailing to Auhangamea, a deep passage between the islands of Uoleva and Tatafa. From thence he appears to have gone to rugged Tofua, where he scaled the rocky hills and viewed an active volcano and the great crater lake, which occupies the center of the island—a change, indeed, from the gentle charms of low-lying, coconut-enshrouded Lifuka.

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[4] Martin, John (M.D.), An account of the natives of the Tonga Islands in the South Pacific Ocean, with an original grammar and vocabulary of their language. [113]
Compiled and arranged from the extensive communications of Mr. William Mariner, several years resident in those islands, 2nd ed., vol. 1, p. 293; vol. 2, p. 321, London, John Murray, 1818.

539

Koe lau ape, tokua, e uha.	It is said, by some, it will rain.
Mea hake mua oku fetuua,	Please observe it is starry,
Pea oku i langi e Aloua,	And the star Aloua stands in the sky,
Pea oku tafitonga e afua:	When the wind is from the south it will be fine:
Matangi ke funga Alakifonua,	The wind is from the direction of Alakifonua,
Pea talolo he funga Eua.	And it dies away on the top of Eua.
Ka hoko o hema pea toki uha.	When it is from the left then it will rain.
Koe mala eni o ha po uha;	The misfortune of a rainy night;
Fai ai e afe fakamalua,	When it comes, the turning aside for shelter,
A ena ape oku manatua.	Which perhaps you remember.
11. He nai manu oe pale,	11. Strayed perhaps the bird of the prize,
Ake mai kuo vale.	Revived it was silly.
Nai manu oe kaho,	Perhaps the bird of the reed,
Ake mai kuo aho.	Revived when it was day
12. Liku Tonga, liku tapu,	12. Weather shore of Tonga, the sacred weather shore,
Laulea moe ngalu.	Much talked of and its surf.
13. Oku tangi e tua ke tau he toa:	13. The commoner cries to fight to be a brave:
Kae toatoa toe tua pe.	And if a brave falls he becomes a commoner.

DISTRIBUTION OF PLACE NAMES IN RELATION TO TONGAN HISTORY 103

The 4776 place names recorded for the kingdom of Tonga are distributed between the five island groups: Tongatabu, Haapai, Vavau, Niuafoou, and Niuatoputapu. Of the total 4776 names, 3922 are limited to single island groups and 854 are common to two or more groups. The total number of names in each group is governed in large measure by the size of the groups, a large area naturally having more names than a small one. In Table 1 the number of names peculiar to each group and the number [128] shared with other groups are shown:

TABLE 1.—NAMES IN EACH GROUP

	Peculiar	Shared	Total
Tongatabu	1561	703	2264
Haapai	1069	541	1610
Vavau	940	573	1513
Niuafoou	252	167	419
Niuatoputapu	100	92	192

Table 2 shows the percentage of names in each group peculiar to the [128] group and the percentage of names shared with other groups.

103 TABLE 2.—PERCENTAGE OF PECULIAR AND SHARED NAMES IN EACH GROUP

	Peculiar	Shared
Tongatabu	69	31
Haapai	66	34
Vavau	62	38
Niuafoou	60	40
Niuatoputapu	52	48

103 631 The variation in percentage of peculiar names shown in Table 2 may in some measure be correlated with the political importance of the several groups. The Tongatabu group, with its relatively large land masses, has always been, so far as known, the political center of gravity of the kingdom, a condition which might well be instrumental in developing a wealth of peculiar place names.

103 128 Table 3 shows the total number of names in common for each two groups. The most striking feature of this table is the relatively small number of names which Vavau and Haapai have in common, considering that they are adjacent groups. This becomes especially apparent by contrast if one examines the figures of Table 1: Vavau shares 97 out of remote Niuafoou's 167 shared names, but only 168 out of neighboring Haapai's 541 shared names. The situation is made clearer in Tables 4 and 5.

103 TABLE 3.—NUMBER OF NAMES IN COMMON BETWEEN EACH TWO GROUPS

	Tongatabu	Haapai	Vavau	Niuafoou
Tongatabu				
Haapai	425			
Vavau	446	168		
Niuafoou	123	91	97	
Niuatoputapu	59	53	62	27

103 128 Table 4 shows the number of names in common between each two groups, expressed in percentages of the number of shared names in each of the groups. This table should be read downward, the name at the head of each column being that of the group under consideration: Thus, Vavau has 77 per cent of its shared names in common with Tongatabu, but Tongatabu has only 63 per cent of its shared names in common with Vavau.

TABLE 4.—PERCENTAGE OF NAMES SHARED BY EACH TWO GROUPS

	Tongatabu	Haapai	Vavau	Niuafoou	Niuatoputapu
Tongatabu		78	77	73	64
Haapai	60		29	54	57
Vavau	63	31		58	67
Niuafoou	17	16	16		29
Niuatoputapu	8	9	10	16	

Table 5 is based on the same principle as Table 4, but the total of names in each group is taken as the basis instead of shared names. Like Table 4, Table 5 should be read downward, the name at the head of each column being that of the group under consideration. Thus, Vavau has 29 per cent of all its names in common with Tongatabu, but Tongatabu has only 19 per cent of its names in common with Vavau. 103 128

TABLE 5.—PERCENTAGE OF NAMES COMMON TO EACH TWO GROUPS ON BASIS OF TOTAL NAMES OF EACH GROUP 103

	Tongatabu	Haapai	Vavau	Niuafoou	Niuatoputapu
Tongatabu		26	29	29	30
Haapai	18		11	21	27
Vavau	19	10		23	32
Niuafoou	5	5	6		14
Niuatoputapu	2	3	4	6	

Table 6 presents the average percentage indexes of the interrelations of the island groups. The upper diagonal half of the table employs the percentages presented in Table 4 based on shared names only. The lower diagonal half of the table employs the percentages presented in table 5 based on all names in each group. The so-called average percentage index is the average of the two percentages of relationship for each two groups. Thus, in Table 4, Tongatabu has 60 per cent of its shared names in common with Haapai; Haapai has 78 per cent of its shared names in common with Tongatabu; the average percentage index for the two groups, based on shared names, is therefore 60 plus 78, divided by 2, or 69, which is the figure entered in Table 6. It would appear that the average percentage indexes based on all names in each group express more nearly the relation which subsists between each two groups than do the percentage indexes based on shared names, since the percentage of shared names varies in each group (see Table 2), whereas the percentage of total names in each group is always 100. 103 128

TABLE 6.—AVERAGE PERCENTAGE INDEXES OF INTERRELATIONS OF ISLAND GROUPS

BASED ON SHARED NAMES

	Tongatabu	Haapai	Vavau	Niuafoou	Niuatoputapu
Tongatabu		69	70	45	36.5
Haapai	22		30	35	33
Vavau	24	10.5		37	38.5
Niuafoou	17	13	14.5		22.5
Niuatoputapu	16	15	18	10	

BASED ON ALL NAMES

Whether we base the indexes of group interrelations upon the percentage of shared names or upon the percentage of all names, certain significant breaks in our series of figures appear.

103 Table 6 reveals the fact that Vavau is more closely tied to Tongatabu than is Haapai, whether the index is considered as based on total names 128 or on shared names only. The index differences are not large, being two in the first instance and one in the second. They would seem to indicate that intercourse between Tongatabu and Vavau has been fully as great or slightly greater than between Tongatabu and Haapai. The names exclusively shared by Tongatabu and Vavau total 212, by Tongatabu and Haapai 193; whereas the names exclusively shared by these three groups [174] total only 132. Perhaps the explanation of this lies in the supreme political position of Tongatabu, from which the emissaries of the Tui Tonga [631] were continually going forth to the other groups to collect tribute and to carry out many other missions. On the other hand the fact must not be overlooked that the high index figures which connect Haapai, Vavau, and Niuafoou most closely with Tongatabu are to some extent due to the great number of place names in Tongatabu (2264) increasing the chances for a high percentage of shared names. The only group that fails in this regard is Niuatoputapu, which by both reckonings (in Table 6) has most in common with Vavau; Tongatabu runs a close second—only two index units below Vavau—whether it is considered from the standpoint of all names or shared names only. Apparently the propinquity of Niuatoputapu and Vavau may be adduced as the explanation.

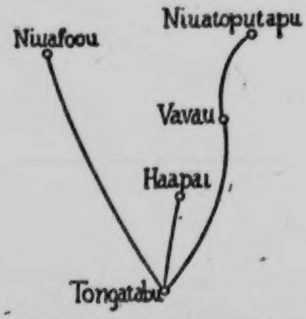
While speaking of Niuatoputapu in relation to Vavau, it might be well to note the aloofness that appears to exist between Niuatoputapu and Niuafoou shown in Table 6 by the two lowest index figures, 10 and 22.5. 103 Apparently the two Niuas were concerned more with Vavau, Haapai, and Tongatabu than with each other. This again would seem likely to be [174] correlated with the larger population and greater political importance of [631] the three main groups of the archipelago. Of the three main groups Tongatabu and Vavau have more in common with the outlying Niuas than has Haapai.

The position of centrally located Haapai is anomalous. It has been already noted that she has less in common with Tongatabu than has Vavau. Just above it has been noted that she has less in common with the two Niuas than have Tongatabu and Vavau. Now comes the third negative correlation and by far the most significant of all: Her lack of relationship with the remote Niuas is quite eclipsed by the aloofness she displays towards her northern neighbor Vavau. Whether the indexes based on all names is used or that on shared names only, the situation is the same and glaringly apparent—in both Haapai has relatively less in common with Vavau than with the other four groups of the kingdom, thus violating expectancy based on the law of chanre and expectancy based on geo-

4: Gifford E-4,5 (1920-1921) 1923 OU9 Tonga OU9

graphic propinquity. Actually Haapai and Vavau have only 86 names exclusively in common, while Haapai and Tongatabu have 193, and Tongatabu and Vavau 212. The evidence seems to point to some disturbing historical factor, perhaps intermittent hostility such as was rife between Haapai and Vavau during Mariner's sojourn in Tonga. 103 103 174

The situation revealed by the distribution of Tongan place names is roughly shown by the accompanying diagram which is based on the assumption that the principal diffusion has been from the large groups to the small ones. Numerous minor diffusions have doubtless taken place, many of them being reciprocated—that is, for example, not only have names flowed outward from Tongatabu, but they have likewise flowed inward to Tongatabu. [128]



The diagram, and in fact this whole discussion, tacitly assumes a primacy for Tongatabu, not only politically, but also in length of period of human occupation. In regard to this last point I should like to state that kitchen middens several feet in depth are to be found in a number of places in the Tongatabu group. With the exception of a thin surface of blackened soil with scattered shell, which I observed on Euakafa island in the Vavau group, I failed to find either in Haapai or Vavau any evidences of prolonged occupancy comparable with those in Tongatabu. Of course, the Tongatabu shell heaps may be interpreted as indicating a denser population, but it would be rash to entirely cast aside the theory of longer occupancy. Quite likely the magnitude of the shell heaps is due to both factors, longer occupancy and denser population. 128 174 172

SAMOAN PLACE NAMES IN TONGA

103

Five hundred and sixteen place names mentioned by Krämer[19] have been examined for Tongan parallels. One hundred and one of the Samoan 177 [128]

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[19] Krämer, Augustin, Die Samoa-Inseln, Stuttgart, 1902, 1903.

[113]

103 names, or nearly twenty per cent, are employed in Tonga, being distributed
177 among the five groups as follows: Tongatabu 71, Vavau 47, Haapai 40,
Niuafoou 15, and Niuatoputapu 9.

The order of frequency of Samoan names in Tonga is very nearly the order of frequency of Tongan names. (See Table 1.) Again Haapai is out of accord with expectancy. Haapai has 1610 names against Vavau's 1513, yet Vavau has 47 names in common with Samoa against Haapai's 40. A full gazetteer of Samoan place names would probably maintain the proportions revealed by the present sample. Here, perhaps, is another clue to the anomalous position of Haapai in reference to the rest of Tonga. Tongatabu and Vavau have absorbed more Samoan place names than Haapai, or conversely, perhaps, Samoa has borrowed more names from Tongatabu and Vavau, than from Haapai.

●[128] The high proportion of Samoan names found in Tongatabu is probably
due in some measure to the large number of place names (2264) in Tonga-
177 tabu, increasing the chances for Samoan parallels. On the other hand
174 there are some Tongatabuans with Samoan blood in their veins. Even
144 the line of Tui Kanokupolu chiefs now supreme in Tonga, sprang from a
643 Samoan woman, the mother of Ngata the first Tui Kanokupolu, who was
probably appointed about 1610. It is this line of rulers, half Samoan in
origin, who today hold the throne of Tonga, Her Majesty Queen Char-
177 lotte Tupou being the 21st Tui Kanokupolu. It seems clear therefore that
174 the high percentage of Samoan names in Tongatabu, more than a tenth
103 of those listed for Samoa by Krämer, is due to something more than the
operation of the law of chance.

177 It is worthy of note in this connection that of names shared exclusively
103 by Samoa and one Tongan group, Tongatabu and Samoa have 27, Haapai
and Samoa 7, Vavau and Samoa 7. In other words, of the 71 names
common to Samoa and Tongatabu, 27 are shared by Samoa and Tongatabu
[174] to the exclusion of other Tongan groups. This is very likely correlated
with the direct infusion of Samoan blood into the population of Tongatabu.

REMARKS ON THE GAZETTEER

In compiling the list of Tongan place names, the following information, 128 when available, is recorded: (1) the feature to which the name is applied; (2) the group of islands in which the feature occurs; (3) the island on which the place is located; (4) the village near which it is located; (5) the name of the landlord; (6) the meaning of the name; and (7) miscellaneous data.

102
361

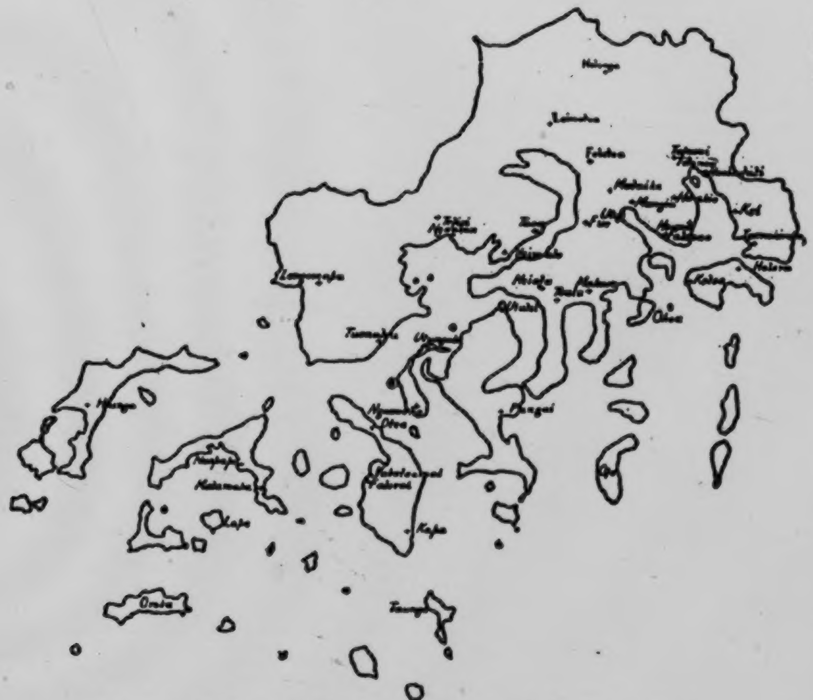

FIGURE 1.—Outline map showing the villages of the Vavau group.

In the Gazetteer the largest number of names are of tracts (*api*) and 103 village tracts (*apikolo*) and were obtained from the Tongan land office [127] records. The tracts are the farm lands of the population, and each tract [423] listed is today held by a Tongan tenant. Most of the tract names seem to be ancient. Not so the village tract names, many of which are of foreign 361 countries; for village life in Tonga is only a century and a quarter 178 old, the population formerly dwelling scattered over the land. Civil war, [103] [241]

convenience in attending frequent church services, and the copra trade are 361
probably the chief factors responsible for the growth of the villages and 178
for the degeneration of agriculture. Today the Tongan resides in a village 241
from which he makes the necessary excursions to his farm. Anciently he resided on the farm (*api*) and there were no villages. Needless to say, the extent of cultivated land is much diminished.

Too much faith should not be placed in the meanings of place names 103
listed. The average Tongan appears to give no more thought to the meaning of his place names than we do. If asked what a name means, it is 128
an even chance he will not know. The meanings of almost all place names
in this paper were worked out by Tongan scholars, European and native. [127]
These meanings have all been studied by the author and modified where it seemed necessary. Nevertheless, some meanings are undoubtedly forced, and, what is more, it sometimes happens that a name is open to more than one interpretation.

Even with these short-comings in mind it is apparent that the meanings 103
of names fall roughly into two great classes, descriptive and commemorative. The former refer to some feature of the locality, the latter to some event, usually trivial enough. There are also names of foreign places. Undoubtedly when comparison with other regions is made these will increase many fold. Apparently some names express in sarcasm or 423
irony the injured feelings of the tenant of the tract, for it must be remembered that land is not owned by the rank and file of the population. [103]
It is leased from the government and from the nobility, there being in all some thirty such landlords. The rentals paid today in coin replace the ancient tribute of produce paid to the lords of the land.

The name of the landlord has been recorded for every tract; the [128]
absence of a personal name signifies that the government is the landlord.

So far as Tonga alone is concerned, the names of the landlords appear 174
of slight significance in solving the problem of Tongan origins. Here and 103
there a place name appears definitely associated with a landlord, as the place name Haatalafale with the landlord Tui Pelehake. I believe, however, that the recording of the landlord names will prove exceedingly 121
valuable when comparisons are made with other parts of Oceania.

In the gazetteer the several occurrences of a single name are listed 128
from the Tongatabu group in the south to Niuafoou in the north. Roughly the order of listing the occurrences on several islands in a group, or near several villages on an island, is from south to north and from west to east. The reason for selecting the southern or Tongatabu group as the starting point is the fact that it seems always to have been the political and cultural center of the Tongan kingdom. The names of the five groups of 104

104 the Tongan archipelago are represented throughout the gazetteer by the following abbreviations in parentheses: (T) Tongatabu; (H) Haapai; (V) Vavau; (NT) Niuatoputapu; (NF) Niuafoou.

127 The Tongan and scientific names of Tongan birds have been derived from two papers, one by Finsch and Hartlaub,[20] the other by Gräffe.[21] I. H. Burkill's Flora of Vavau[22] gives the Tongan as well as the scientific names of a dozen Vavau plants. 128 To a slight degree the scientific names of Samoan plants and animals were utilized for their apparent Tongan equivalents where the native names in the two archipelagoes were similar. Such a proceeding, however, is unsound and has not been carried far by [127] the author. The few names utilized were derived from Pratt[23] and from Krämer.[24] The location of villages on the island of Tongatabu and on the islands of the Vavau group is shown on the maps (fig. 1 and fig. 2).

127 No charts were available for showing the position of the villages on the island of Niuafoou, namely: Mua, Tongamamao, Sapaata, Mataaho, Fataulua, Angaha, Ahau, and Petani; nor for those on the island of Niuatoputapu, namely: Vaipoa, Hihifo, Matavai, and Falehau.

113 For the location of islands, reefs, channels, hills, and other geographic features within the Tongan Archipelago, standard atlases, British Admiralty charts, and the following charts issued by the Hydrographic Office of the United States Navy may be consulted:

No. 1500, Pacific Ocean, scale 3/16 in.=1° of longitude. Shows the entire kingdom of Tonga, from Ata (Pylstaart) island in the south to Niuafoou in the north.

No. 2021, Fiji Islands to Samoa Islands, scale 2 9/16 in.=1° of longitude. Shows the entire kingdom of Tonga except the southernmost island, Ata (Pylstaart).

No. 2016, Tonga, or Friendly Islands, scale 1/8 in.=1 nautical mile. Shows the entire kingdom of Tonga, except the northern islands: Niuafoou, Niuatoputapu, and Tafahi.

No. 2013. Tongatabu, scale 2 in.=1 nautical mile. Shows the northern half of Tongatabu and the northern islands of the Tongatabu group including Eueiki. Eua and Kalau islands are not shown.

No. 2010, Nukualofa Anchorage and Nomuka Harbor, scale 4 in.=1 nautical mile; Eua Island, 1 in.=1 nautical mile; Falcon Island, 1 14/16 in.=1 nautical mile. Details of Tongatabu harbor and of Nomuka (in Haapai) and neighboring islands are also shown. The village of Kolomaile on Eua island is designated as Haatua.

No. 2006. Namuka group, scaue 1 in.=1 nautical mile. Shows the southernmost portion of the modern province of Haapai; namely, Nomuka and adjacent islands.

No. 2008, Haapai group, southern portion, scale 1 in.=1 nautical mile. Shows the

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[113] [20] Finsch, O. and Hartlaub, G.: Zur Ornithologie der Tonga-Inseln, Journ. für Ornith., pp. 119-140, 1870.

[113] [21] Gräffe, Edward. Ornithologische Mittheilungen aus Central Polynesien, I. Die Vogelwelt der Tonga-Inseln, Journ. für Ornith., pp. 401-420, 1870.

[113] [22] Journ. Linn. Soc. London, vol. 35, pp. 20-65, 1901.

[113] [23] Pratt's Grammar and Dictionary of the Samoan Language, 4th ed., London Missionary Society, Malua, Samoa, 1911.

[24] Krämer, Augustin, Die Samoa Inseln, Stuttgart, 1902, 1903.

islands of the central portion of the modern province of Haapai. The four villages of Lifuka Island are shown. On Uiha island, the southerly town is Felemea; the northerly, Uiha. 113

No. 2007, Haapai group, northern portion, scale 1 in.=1 nautical mile. Shows the northern third of the modern province of Haapai, including the islands of Foa and Haano. From south to north the villages on Foa are: Fangaleounga (shown as Fongingonga on the chart), Fotua (shown as Alaki Fonua), Lotofoa, and Faleloa. From south to north the villages of Haano are: Fakakakai (spelled Fakakai on the chart), Pukotala (spelled Bukutala), Haano, and Muitoa.

No. 2012, Vavau group, scale 1 in.=1 nautical mile. Shows geographic details and the location of some villages.

No. 2009, Lifuka Island Anchorage, scale 4 3/16 inches=1 nautical mile. A large scale map of Lifuka Island, Haapai.

No. 1983, Neiafu Harbor and approaches; Ofolanga Island and anchorage, scale 5 14/16 inches=1 nautical mile. A large scale map of Ofolanga Island, Haapai, and Neiafu harbor, Vavau group.

Star names not already listed by Collocott[25] are included in the gazetteer. 128

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[25] Collocott, E. E. V., Tongan astronomy and calendar: B. P. Bishop Mus., Occ. paper, vol. 8, pp. 158-162, 1922. [113]

5: Gifford OU9 Tonga OU9

115
124
127
128

[For scattered references to informants' names, documentary sources, and translators, see Category 116.]

5: Gifford E-4,5 (1920-1921) 1924 OU9 Tonga OU9

Tongan Myths and Tales

Compiled by Edward Winslow Gifford

INTRODUCTION

The printing press has undoubtedly done more to preserve the extant 114
Tongan myths and legends than has oral transmission. Fortunately both
the Wesleyan Methodist and the Roman Catholic churches in Tonga adopted
the broad policy of publishing in their Tongan language magazines many
stories from raconteurs now long dead. A number of tales presented in 127
the following pages are drawn from these sources.

A series of stories was recorded at first hand from Tongan narrators 124
during my nine months sojourn in Tonga in 1920-1921. For many of them
the published versions, rather than the tales of some elder relative, were
the relater's source of information. For such tales I have discarded the 128
oral account and have presented only a translation of the printed version. 127

European folk tales have also been published in Tongan for the delectation of the Tongan public. As a result I not infrequently found myself 177
recording some well known story, such as Cinderella or Dick Whittington's Cat, under a thin disguise of Polynesian names. There were also 538 [124]
hybrid tales in which the leading roles were played by princes, princesses,
and premiers, or again by cats and ferocious mammals.

Through the diligent efforts of the late Reverend Father Francis Xavier 113
Reiter of the Catholic Church and of the Reverend E. E. V. Collocott of the 114
Methodist Church, a number of Tongan myths have been presented in the
anthropological periodicals Anthropos and Folk-Lore. Myths thus recorded 128
are not reproduced in this paper, except insofar as I secured variants or the
original Tongan text.

Modern Tongans have a distinct national pride and feel that they constitute a nation superior to their neighbors. I am inclined to believe that 186
this national spirit is a survival from ancient times, which has been fanned
into fresh vigor under the astute guidance of that remarkable ruler, King
George I. Tupou. An undoubted manifestation of this patriotic feeling is [814]
the interest taken by many Tongans in the past of their nation. As a result 123
of this widespread interest the expedition met with hearty coöperation from
Tongans as well as from Europeans.

The interest of the educated Tongan in the past of his country is well 539
illustrated by the following Tongan verse written by the late chief Tafolo, 814
a scion of the Tui Tonga's house.

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539 Fakamolemole a houeiki mo ngaohi haa,	Pardon me, noble chiefs and lineages,
He oku mamao mo faingataa ae faanga;	For the searching place is now far and difficult;
814 Koe tolutalu nae tuu holo he ngahi halanga	The old plantations once scattered on the roads
Kuo fuu puli pea alu mo hono toutangata.	Have now quite disappeared and gone with them their generation,
Ka ne ongo ene vao fihi mo tevavaa,	But although they now lie in very thick bush,
Kae fai pe ha vavaku mo sia faala	Search will be made at any rate
Kia Touiafutuna, koe uluaki maka	For Touiafutuna, the first rock
Nae fai mei ai hotau kamataanga.	Where our origin began.
Kehe koe talatupua ia mo fananga,	Though these are only traditions and fables,
Oku utuutu mei ai sii kau faa.	'Tis here the inquirers get their facts.

127 My thanks are due to Her Majesty the Queen of Tonga, to the Prince Consort William Tungi, to Messrs. W. H. Murley, J. P. Maatu, E. E. V. Collocott, and to Mrs. Rachel Tonga for generously allowing me to use unpublished tales which they had recorded. The Methodist and Catholic churches, through their representatives, the Rev. R. C. G. Page, Rev. E. E. V. Collocott, and His Lordship Bishop Joseph Felix Blanc, courteously placed the old manuscripts in their archives at my disposal.
128 For the patient and painstaking work of Miss Beatrice Shirley Baker in translating hundreds of pages of Tongan text I am especially grateful. To others I am indebted for similar work, to wit: Mr. Alphonse J. Gaffney, Mr. Solomon Ata, Mrs. May Laurence, Mr. E. E. V. Collocott, Mr. W. H. Murley, Mr. William Finau, Miss Georgina Sutherland
124 and Miss Lena Hettig. Acknowledgment of the help of various Tongans who related stories is made in connection with their contributions.

104 Two excellent dictionaries of the Tongan language offer a choice in orthography. One is the compilation of the Catholic Missionaries of the
[114] Marist Brotherhood,[1] and the other is the compilation of the Reverend Shirley W. Baker.[2] I have, with one exception, elected to follow the orthography set forth on pages 1 and 2 of the Dictionnaire Toga-Francais because it conforms more closely to the orthography of other Polynesian dialects. In the present paper sixteen symbols in all are used, of which five represent vowels and eleven consonants. The vowels are *a*, *e*, *i*, *o*, and *u* and the consonants are *f*, *h*, *k*, *l*, *m*, *n*, *ng*, *p*, *s*, *t*, and *v*. *Ng* is used in this paper in place of the *g* employed in both the Catholic dictionary and Baker's dictionary.

Baker's dictionary differs from the Catholic dictionary in using both *b* and *p* instead of *p* alone; and *s* and *j* instead of *s* alone. Consequently, in

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[113] [1] Missionnaires Maristes, Dictionnaire Toga-Francais et Francais-Toga-Anglais. Paris, Ch, Chadenat, 1890.

[113] [2] Baker, Shirley W., An English and Tongan Vocabulary, also a Tongan and English Vocabulary, with a list of idiomatic phrases; and Tongan Grammar, Auckland, N. Z., 1897.

following the Catholic dictionary I have consistently written *p* for *b* and *s* for *j* in order to secure uniformity throughout the paper. To this extent I have altered certain of the printed Tongan texts that I have quoted. In the word Tongatabu, however, I have followed the customary spelling, as the *b* is too well established in general use to make the change to Tongatapu desirable.

TONGAN MYTHOLOGY AND THE ORIGIN OF THE TONGANS

127 171 121 Though it is premature for a detailed comparison of Tongan mythology with other Polynesian mythologies, the writer has attempted a rough approximation of the affinities of Tongan mythology to the mythologies of the great areas of the Pacific as presented in Roland B. Dixon's "Oceanic Mythology."[a]

127 128 Having Tongan mythology quite thoroughly in mind, Dixon's book on Oceanic mythology was read and a check mark entered in the margin wherever an episode appeared to have a Tongan parallel. If error was made it was on the side of entering too many check marks, for undoubtedly some of the episodes checked as having Tongan parallels, in truth have not, as
171 the resemblance in certain instances was rather remote. Upon completing the book it was found that there were sixty-seven check marks in the Polynesian part, forty-eight in the Indonesian, twenty-seven in the Micronesian, ten in the Melanesian, and six in the Australian. These figures undoubtedly represent in a rough fashion the affinities of Tongan mythology. It was to be expected that resemblances to Polynesia would be numerous, and undoubtedly when the other members of the Bayard Dominick Expedition have published their reports the number of resemblances will be materially increased.

The number of parallels between Indonesia and Tonga are astonishingly large, being more than four times the number that are found between Tonga and Melanesia. Many of the resemblances between Tonga and Indonesia are so specific that it is hard to believe they are merely accidental. In fact, the high number of resemblances, forty-eight, would preclude accident as the sole factor, especially when contrasted with only ten resemblances between Tonga and adjacent Melanesia.

171 128 The paucity of the Micronesian material undoubtedly accounts for the fact that only twenty-seven resemblances were found between it and Tongan material. On the other hand, allowing for the scarcity of Micronesian material, this is a fairly high figure and would seem to indicate that the connection between Tonga and Indonesia is by way of Micronesia rather than Melanesia.

174 The Tongan myths and tales in themselves throw a little light on the geographic aspect of Tongan origins.

773 538 In looking over the field of Tongan mythology, one is struck by the frequency of derivation of plants and fishes from Samoa, from the sky, and from Pulotu (the land of the gods), and by the absence of allusions to Fiji as a place from which useful plants and animals have been derived.

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[a] Dixon, Roland B., The mythology of all races: Oceanic, vol. 9, Boston, 1916.

5: Gifford E-4,5 (1920-1921) 1924 OU9 Tonga OU9

COSMOGONY

773 Tongan cosmogony, unlike some other Polynesian cosmogonies, does
171 not tell of a void in the beginning, but instead tacitly assumes the preexistence of the sky, the sea, and the land of Pulotu (the home of the souls of departed chiefs).

113 The Tongan creation myth has happily been published in both Tongan and French by Father Reiter.[13] In 1910 Josiah Martin [14] published a portion of the Tongan creation story in which the fishing up of the island of Tongatabu is related. Reverend E. E. V. Collocott [15] has published a free translation of the account of the origin of the gods and of the world. Creation myths have also been published in the Tongan language.[16]

128 In the present paper only the variants of these published accounts are recorded.

114 The account by Father Reiter and that by Collocott disagree as to the
paternity of the Maui, the former naming the god Taufulifonúa as the
776 father, the latter the god Biki (Piki). The manuscript of J. P. Maatu agrees with Father Reiter's account in proclaiming Taufulifonua the father of the Maui. But Maatu's manuscript goes further and lists them as Maui Loa, Maui Puku, and Maui Atalanga. Collocott lists them as Maui-motua, Maui-buku, and Maui Atulanga.

114 Again Maatu's manuscript is specific where the published accounts are
not. It states that the particular sort of *kiu* (snipe or plover), in which
773 Tangaloa Atulongolongo became incarnate in his search for land, was the
tulione. A second version in Maatu's manuscripts is not so specific. It
114 does, however, state that the writers of the version were Kelekele and Tokemoana, who with Tongavalevale and the Tamaha Amelia were the writers of a similar account that I obtained from Jonathan Fonua of Neiafu, Vavau.

773 In the Tongan cosmogonical tales there is no hint of the creation of the sea, sky, sun, moon or stars. Their preëxistence is either stated or tacitly assumed.

539 The account of the origin of the gods in the old manuscript in the possession of Mr. John Panuve Maatu describes the origin of sexual intercourse by the twin deities Taufulifonua (male) and Havea Lolofonua (female): "And Piki and Kele made a new country which they named Tonga Mamao (Distant Tonga) and took their children Taufulifonua and Havea Lolofonua

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[13] Reiter, P., Traditions tonguiennes, Anthropos, vol. 2, pp. 230-236, 438-443; 743-750, 1907.

[14] Martin, Josiah, Origin of the name of Tonga Island: Jour. Poly. Soc., vol. 19, pp. 162-166, 1910.

[15] Collocott, E. E. V., A Tongan theogony: Folk-Lore, vol. 30, pp. 234-238, 1919.

[16] (1) By Taufapulotu, Koe tupuaga o mamani mo hono kakai, Koe Fafagu, vol. 4, pp. 123-127, 1906; (2) By the Tamaha, Kelekele, Tokemoana, and Tongavalevale, the origin tale, published in Koe Makasini a Koliji, vol. 4, pp. 22-26, 51-55, 74-78, 1881-1883; (3) Koe talanoa ki Eua, Koe Makasini a Koliji, vol. 4, pp. 109-111, 1881-1883.

there. But not yet did those two know each other. They were still innocent and went about naked, for they were not ashamed. So it was until one day when they went to bathe in the sea and were lying face downwards with their feet in the water. The tide was flooding and began to break upon their feet. On and on it came, until it covered their bodies. *Subito piscis qui oo appellabatur, unda adlapsus cunnum puellae exhauriebat.* She was in pain and cried and kicked her feet about in the sand, because of the suffering caused by the oo's sucking. Neither she nor her brother knew what to do to relieve her agony. *Molliter cunnum manu mulcebat; neque tamen ex eo puella quam minimum solatium cepit. Denique penem inseruit et ex eo magnum solatium cepit.* That was the beginning of their knowledge and they cohabited regularly thereafter." 539

Garbled verbal accounts of the cosmogony were obtained from various 773 informants. In one of these, the three human beings created from the 539 maggot or worm are designated as a man, a woman, and a third person. [124] The woman is called Kohai, the man Momo, and the name of the third was forgotten. The three names, however, are assigned a mystic significance, Kohai standing for the future, Momo for the present, and the third name for the past. This is probably a connotation introduced solely by the raconteur, James Lilo, of Lotofoa, Foa island, Haapai.

In certain of the accounts a clear distinction is made between the islands fished up by the Maui (Tongatabu, Haapai, Vavau, Niua, and Samoa) and those which they did not fish up.

> "They did not fish up Kao, Tofua, Hunga Haapai, Hunga Tonga, Late, or Fonualei [all volcanic islands]. Nor was all of Fiji fished up. The countries that were not fished up were thrown down from heaven. Therefore they are called the land-stones (*makafonua*) of Hikuleo, the maker of all the countries that are full of unevenness, that jump backward and forward [i.e., are subject to earthquakes] and that are full of holes and pits, for they are the countries which were not fished up by the Maui."

A brief version of the Maui land-fishing story told by Lie, a man of Koulo, Lifuka island, Haapai, makes Eua the starting point of the expedition, makes the woman, who becomes enamoured of one of the Maui, the daughter of the hook owner instead of his wife, and makes the first land hauled up Rarotonga instead of Tokelau.

An important text dealing with the origin of the wind and of various 539 food plants forms a sequel to the tale about the creation of man on Ata. This text, which might appropriately have formed part of the series published [127] by Father Reiter in Anthropos, was courteously placed at my disposal by the Right Reverend Bishop Joseph Felix Blanc of Tonga. Because [128] of the importance of the tale I present the original Tongan text as

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539 [128] written by Father Reiter parallel with a translation by Miss Beatrice Shirley Baker.

Pea nae osi a Ata hono ngaohi, koe motua fonua ia. Pea nae ikai tupu aki ae kongo oe uanga a Kohai mo Koau mo Momo; ka naa nau tupupe kinautolu ihe uanga, pea fakahako ai ae kakai o mamani.

Ka nae toki fekau e Tamapouliala-mafoa, koe tui ia oe langi; pea mo Tangaloa Eiki, pea mo Tangaloa Tufunga, aia oku tuki toki, koia oku hingoa ko Tangaloa Tufunga, mo Tangaloa Atulongolongo, o nau fekau moe kau Tangaloa ke o hifo a hono tui o Ata. Pea nau pehe ange ki he faahikehe, ko Laufakanaa, hono hingoa: "Hau, koe Laufakanaa; ke ke alu ki lalo, ki mama; ko ena ho fonua, ko Ata; ke ke pule ai mo ke faiteliha ihe mea kotoape oe fonua koia. Pea ke alu koe, Laufakanaa moe matangi; ke ke fakatupu ha matangi: Ka ai ha vaka e'matangi kovia, pea hau kiate koe Laufakanaa, o humai kiate koe mo kole mai kiate koe, pea ke tuku ha matangi lelei ki he vaka koia, ke alu lelei ihe vaka, pea tau lelei ki ha fonua e alu kiai; kae oua naake tuku ha matangi kovi, pea mate ai ae vaka ihe tahi, ka he fakatupu ha matangi lelei."

539 789 776 Koia oku nofo ai ae tevolo ko Laufakanaa ihe motu ko Ata, koeuhi ka ai leva ha vaka e matangi kovipe, pea alu leva o hu mo kole kia Laufakanaa ke ne tuku mai ha matangi lelei kihe vaka koia, pea loloi i he vaka koia. Pea loloi i he vaka koia ae ma o loloiaki ae niu ko ave ma ae tevolo ke kai; ko enau feilaulau, koeuhi ke ofa a Laufakanaa ihe vaka koia; pea folau leva ia, kuo tuku e Laufakanaa ae matangi lelei ke nau folau ai.

539 Pea nae alo hifo a Laufakanaa mei langi mo hono kupenga o fai i Ata; koe kupenga ika koia oku toutai ika ae fonua koia. Oku nau fai ae aho ika oe Tui Tonga: Ka koe tupu i he kupenga nae o hifo e Laufakanaa.

And Ata (island) was finished making and that was the first land. And were not made from the pieces of the worm (the men) Kohai (Who) and Koau (It is I) and Momo (Crumb); but they arose from the worm and the people of the world were their descendants.

Then Tamapouliialamafoa commanded, —he was king of the sky; and (he commanded) Tangaloa Eiki, and Tangaloa Tufunga, who is axe-maker, and (hence) is called Tangaloa Tufunga (carpenter), and Tangaloa Atulongolongo, and he told the Tangaloa to send down a ruler for Ata. And they said to a god, Laufakanaa was his name (*lau*, speak; *fakanaa*, to silence): "Come you Laufakanaa; go below to the earth; there is your land, Ata; it is for you to rule and you may please yourself about everything in that land. And you go, Laufakanaa, and make the wind; you will create the wind. If there is a vessel that has bad (or stormy) winds, and (the people) come to you, Laufakanaa, and sue and solicit you, then you must give fair winds to that vessel, for the vessel to go (sail) well, and to anchor safely at the land to which it is going; and you must not give a bad wind, for the vessel to die (or to be lost) at sea, but you must create a good wind."

That is the reason why the god Laufakanaa dwells at the island Ata, because should there be a vessel that has bad wind, and (the crew) go and sue and solicit help from Laufakanaa, it is for him to give a fair wind to that vessel. Then (the people) of that vessel (must) cook the native bread (*ma*) with the oil of the grated coconut and take it to the god to eat; that is their offering to Laufakanaa, for him to love their vessel; and the vessel sails, and Laufakanaa gives a fair wind with which to sail.

And Laufakanaa went down from the sky with his fishing net and used it at Ata; and that (sort of) fishing net is used by (the inhabitants of) that land to fish. And they use it on the fishing day of the Tui Tonga: and that sort of net originated from the fishing net that Laufakanaa brought down with him.

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EXPLOITS OF THE MAUI

The full Tongan cycle of the exploits of the Maui (exclusive of the land-fishing expedition which is incorporated with the Tongan cosmogony) has recently been published in Tongan with an accompanying French translation.[21] The Reverend E. E. V. Collocott subsequently published a free English translation of the same Tongan account.[22] Tongan accounts have also appeared in two Tongan publications.[23] 113

Since the subject has been so fully covered there is but little left for me to present. However, there is a brief Tongan poem about Maui, accompanied by a prose account of him. These were obtained by the Reverend J. E. Moulton and made available to me by Messrs. R. C. G. Page and E. E. V. Collocott. The poem and prose account, with Miss Baker's translation, follow: 128 [127]

Lau koe ngataanga e langi e teve,	It is said that the boundary of the sky was a *teve* plant, 539
Pea tuu a Maui o teketeke	That Maui stood and pushed up the sky
Aki e u kae alu e fefine faele	With a stick for a confined woman
Ae langi na ka tau haele.	So that we might under the sky walk upright.
Tupaheo!	Tupaheo!
Kulo moe hafu hau ta tukua	Pot and drift come and let us leave
Matatolu siene tafe mo puna.	The spring Matatolu which runs and flows.
Umu si a Maui i Eua	Maui at Eua cooked *si* root
Tao aipe ke moho huhua.	Until it was juicy.
Tupa!	Clap!
Koefe a Maui nae vave?	Where is Maui who was quick?
Naa ne lava ki hake e toke	He was able to lift the eel
He luo he ana i Kulukave.	From the hole of the cave in Kulukave.
Tupa!	Clap!
Ko Utukakai mo Talaamohi,	[The places] Utukakai and Talaamohi,
Ko Namalata kuo toka kovi,	[The place] Namalata was very rough
Koefe a Maui ne tafoki	Where is Maui who when he turned
Ke mavava kae fakafai foki?	Shook the earth and did it again?
Tupa!	Clap!
Ko Kohi hono tuuanga u.	[The place] Kohi where he thrust in his stick.
Koefe a Maui nae lau,	Where is Maui they talk about,
Naa ne lavai e vanahuhu,	Who overcame the stinging sea-urchin,
Pea moe koka nae feuu?	And the *koka* tree that bites?
Tupa!	Clap!
Koefe a Maui nea toa,	Where is Maui who was brave,
Naa ne tolotolongi e moa	Who threw stones at the fowl

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[21] Anthropos, vol. XII-XIII, 1026-1046, 1917-1918; XIV-XV, 125-142, 1919-1920.

[22] Folk-Lore, vol. XXXII, 45-58, 1921.

[23] (1) Koe talanoa ki he kau Maui, Koe Makasini a Koliji, vol. 4, pp. 111-114, 133-136, 152-155, 1881-1883; vol. 5, pp. 14-17, 1883-1885; (2) Koe talanoa kihe kau Maui, Koe Fafagu, vol. 5, pp. 104-108, 125-130, 146-150, 167-172, 184-188, 197-202, 211-216, 1907. The author is Taufapulotu.

TALES ABOUT THE TUI TONGA

A considerable number of tales relate to the Tui Tonga, or kings of 173 Tonga. Not only is the origin of the dynasty related, but there are also a 643 number of stories of the adventures and achievements of the various kings. 538 Despite the infrequent references to kings in some of the stories, the tales [128] have been arranged so far as possible in chronological order, basing the arrangement on the list of thirty-nine kings (page 35). In some stories the king himself is not mentioned, but other characters in the story make clear the reign to which it refers. Thus in "The Narrative About Sangone," the Tui Tonga Tuitatui is not mentioned, but his half brother Fasiapule plays a prominent part in the tale.

The placing of the Tui Tonga tales between the Maui cycle and cosmogony, 128 on the one hand, and the tales about various other gods, on 538 the other hand, perhaps requires a few words of justification, since many of the Tui Tonga tales do not transcend the realm of mortal experience. But the fact that the first Tui Tonga is of semi-divine origin, being the [643] son of one of the Tangaloa, makes this position the natural one, at least for the story of this one king. Inasmuch as the narrative does not cease with him, it appears that this is the best position in which to place all of the Tui Tonga stories.

In the following pages there are first given two general accounts of 128 the Tui Tonga, one furnished by Father Reiter, the other by the Rev. Jonathan Fonua. These two accounts are the same in general trend, but the first is the fuller. I present the second account because of the original Tongan text which seems well worth recording.

THE FIRST TUI TONGA[25] 539

There first appeared on the earth the human offspring of a worm or grub, and the head of the worm became Tui Tonga. His name was Kohai and he was the first Tui Tonga in the world. The descendants of the worm became very numerous.

A large casuarina[25a] tree grew on the island of Toonangakava, between the islands of Mataaho and Talakite in the lagoon of Tongatabu. This great casuarina tree reached to the sky, and a god came down from the sky by this great tree. This god was Tangaloa Eitumatupua.

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[25] This tale is a translation by Miss Beatrice Shirley Baker of the original Tongan as related [113] by Taufapulotu and Tongavalevale and published by Father Francis Reiter in the Catholic magazine *Koe Fafagu*, vol. 5, pp. 6-12, 26-32, 41-48, 60-64, 1907. The arrangement of the ma- [128] terial has been altered slightly in order to secure proper chronological sequence. The original Tongan accounts are under two headings: (1) Koe Tupuaga oe Tuitoga (pp. 6-12), by Taufapulotu; (2) Koe talanoa kihe g. Tuitoga, by Tongavalevale.

[25a] The casuarina is generally known in the Pacific islands as ironwood.

TALES ABOUT THE TUI KANOKUPOLU

Tales concerning the line of Tui Kanokupolu chiefs, now occupying 643
the Tongan throne, are not numerous. This is probably due to the fact [538]
that the Tui Kanokupolu family was in origin a collateral branch of the [178]
Tui Tonga's family, which arose in the seventeenth century. It lacks the hoary antiquity of the Tui Tonga dynasty. Its lateness precludes its being enshrouded in legend.

I have but two versions of a single tale to present. They bear the 128
earmarks of authenticity, although I have been unable to learn to what 539
Tui Tonga the heroine was married.

TUUTANGA AND KINIKINILAU[38]

539

The scene of this tale is Tafaata, a tract on the island of Nukunuku- 173
motu (near Tongatabu). 644

The daughter of Atamataila, the second Tui Kanokupolu was called 643
Tuutanga. One day she was being carried in a litter along the shores of Nukunukumotu, having been brought from Hihifo (in Tongatabu). She was being transported to Mua (in Tongatabu) where she was to become the bride of the Tui Tonga.

As the lady and her attendants reached Tafaata, Kinikinilau, her lover, 539
was standing there. He signaled Tuutanga by throwing to her a fruit of 173
the pandanus tree, sharpened like a tooth. Tuutanga picked up this fruit
and knew that it had been thrown by Kinikinilau. She ordered the bearers 644
to put down the litter and she went to meet Kinikinilau. Kinikinilau told Tuutanga that when she arrived at the Langi (literally, the sky, but here meaning the Tui Tonga), she must remember Tafaata, their last meeting place.

Tuutanga returned to her litter and was carried to Mua. There she 539
became the Tui Tonga's wife. After a time she conceived and gave birth 173
to a son who was named Tafolo.

After bearing the Tui Tonga a son, Tuutanga returned to her old 644
home. She could not forget Tafaata until she became pregnant to Kini- 643
kinilau. When her pregnancy was made known to the Langi (the Tui Tonga), the word went forth from the Langi that if she gave birth to a man-child, he was to be named Paku and was to become the Tui Tonga's fisherman. A male child was born and so named. Fakafanua, noble of Maufanga, is a descendant of Paku.

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[38] Told by Taani, mayor of Nukunukumotu, Tongatabu group.

STORIES OF FISH GODS

539 776 Three deities are concerned in this group of tales, namely Tui Tofua, Fakapatu, and Seketoa, who reside, respectively, at Tofua and Moungaone islands in the Haapai group, and at Niuatoputapu island. Tui Tofua and Seketoa are believed to be transformed men.

776 793 [539] In one version of the tale concerning the contest with Fakapatu another fish god is mentioned, namely Taufatahi, who was rather an important deity in the Tongan pantheon and one for whom, at least in Tongatabu, a priest and a sacred precinct were established. In 1921 a priest of this god was living at Mua, Tongatabu. His name was Kautai.

539 [124] [128] Six versions of the tale about the origin of the shark god Tui Tofua were obtained and three of them are printed in this collection. The variations in the other three are as follows:

The tale as told by Samson Latu of Haafeva island, Haapai, transposes the names of the father and son in the story, making Tui Tofua the father and Vakafuhu the son. It is the latter who is transformed into a maneating mud shark (*tenifa*). Vakafuhu's canoe became the rock known as Tolungamaka. After the offerings were made by relatives to Vakafuhu and his companions, small black volcanic pebbles, such as are used on Tongan graves today, appeared for the first time on the beach of Siuatama, Tofua island. They were used on the graves of the men who were transformed into sharks, for such were the instructions which Vakafuhu had transmitted through a Samoan companion who was not transformed.

Samuel Pelé, of Faleloa, Foa island, Haapai group, adds to his version an account of the struggle between the fish god Tui Tofua and the fish god Seketoa from Niuatoputapu, a deity of similar origin; Tui Tofua taking the form of the sokisoki, a spiny fish and entering his rival's stomach. In this version the little finger of the Samoan is severed and becomes a shark instead of a porpoise as in another version. The approach of Tui Tofua and his accompanying sharks is heralded by a discoloration of the sea. The tale relates that should a vessel sink near Tofua or Kotu island, no one will lose his life, because Tui Tofua, the protecting deity is near.

The version related by Paul Taufiaevalu, of Nukualofa, states that the hero, the son of the king of Tofua, had just returned from Samoa with his followers, where he had gone to be tattooed. In this version the son commits fornication with his father's concubines during his father's absence. Upon the latter's return, the son and all of his comrades are condemned to death. The condemned youths seek escape by jumping into the sea and becoming sharks. There were six of them in all. The young chief sent word to his father by a Samoan follower that he intended to become a

5: Gifford E-4,5 (1920-1921) 1924 OU9 Tonga OU9

STORIES ABOUT MUNI

539 The tale of Munimatamahae (Muni-of-the-torn-eye) is one of the most popular of the extant Tongan tales, being widely current in Haapai, the central province of the kingdom and the scene of much of the story.

124 I heard the tale from thirteen persons. In addition the tale has been
113 published twice in verse and twice in prose in the Tongan magazines of
114 the Methodist and Catholic churches. The tale has also appeared in Folk Lore[88], translated into English by the Reverend G. Brown, whose version is based on the Tongan poem and explanation appearing in the Methodist magazine.

128 I reproduce here the Catholic poem and the Methodist poem and ex-
127 planation in Tongan accompanied by a translation. In the notes which follow I have embodied the details of the accounts from twelve living Tongans, insofar as they differ from the account published in Folk-Lore and those published herewith.

539 Several accounts specify that Muni's mother was sitting either on the starboard or the port side of the vessel when she was seized and killed. In some accounts it is stated that the chief of the vessel ordered that a "root" be struck off from the port (or starboard) side. The position of the vessel at the time that the woman was murdered is in some versions specified as near Luangahu island. One account states that the vessel was between Nomuka and Lekeleka islands in the southern portion of the Haapai group.

Four versions state that the chief of the vessel was the Tui Tonga himself, who was on his way to Vavau or Samoa. In one of these four he is specifically called Tuitatui, who was the eleventh traditional Tui Tonga. In another he is called the Tui Tonga from Tukutonga, a place two or three miles east of Nukualofa, Tongatabu island.

A version of the story by John Tupou, of Nukualofa, Tongatabu, gives the name of Muni's mother as Tetele.

The beach on Lofanga where Muni was cast ashore is called Pake in one version, Siumalu in another, and Muni in the Catholic prose version.

The fishing expedition on which an attempt was made to get rid of Muni by scuttling the boat on which he went to sleep is variously stated as being to Nukupule island or Niniva island, neither far distant from Lofanga. In one version only is the scuttling of the boat attributed to Muni's foster parents. In all others it is laid at the door of Muni's hostile fellow islanders.

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[88] Folk-Lore, vol. 27, pp. 426-430, 1916.

THE ADVENTURES OF LONGOPOA AND KAE[164]

In addition to the versions of the adventures of Longopoa and Kae 539
published herewith, two other versions were obtained, one from Sakalaiia [124]
Vao of Felemea, Uiha, Haapai, and the other from Josiah Paluto, of
Pangai, Lifuka, Haapai. These versions differ but slightly from those [128]
which I reproduce. The differences are set forth below.

Vao's story characterizes Loau as the Tui Tonga and states that he had two residences in Tongatabu, Fualu near Pea and Fonuamotu in Mua. The vessel that Loau sailed in is called a *tongiaki,* which is the ancient type of double canoe. The statement in John Tupou's version that Loau sailed in a *kalia* (the double canoe introduced from Fiji) is an anachronism. Loau's vessel, in Vao's version, approaches a reef on which are a pandanus and a great rock. Loau ordered his crew to go on to the reef. As the vessel touched, two men leaped ashore, Longopoa into the pandanus tree and Kae on to the great rock. The vessel with all aboard plunged to the bottom of the sea. Kae escaped from the island of the huge bird *kanivatu* by clinging to the feathers on the under side of one wing of the bird, instead of to the feathers on the leg or on the breast as in other versions.

Vao develops somewhat the initial conversation between Sinilau and Kae, making the former apologize for the poverty of his really prosperous community and the latter tell of the fate of Loau's expedition to the edge of the world. According to Vao's version, upon Kae's departure, Sinilau instructed him to go with the twin whales to the weather shore of Tongatabu, but Kae disobeyed and went to the lee shore. Kae was requested to send back some turmeric and in addition the articles enumerated in the other versions. The ingratitude of Kae is magnified in Vao's version by putting in his mouth the following words about Sinilau's rooster which he heard crowing at dawn: "At daylight I shall kill and eat that rooster for he crows like Sinilau's rooster." At daylight, however, Kae saw that he was in truth back in Sinilau's house, so he sat humbly with bowed head and felt very sorry for his misdeeds. Soon Sinilau entered and upbraided him, and finished by giving Kae to his followers, who took him outside and killed and ate him.

Paluto's version dwells upon the mockery of Loau's people over the farewells that were said preparatory to the make-believe voyages indulged in by Loau upon the surface of the artificial pool in Haamea in Tongatabu. Finally the remarks reached Loau's ears and he resolved to take the scoffers on a real voyage to the horizon. Fiji is mentioned as one of the

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[164] An English version of this tale appears in Folk-Lore, vol. 28, pp. 94-99, 1917, signed by [113]
the Reverend G. Brown.

STORIES ABOUT VISITS TO PULOTU, THE LAND OF THE DEPARTED

Tales recounting the adventures of gods and mortals who journeyed 538 773 from this world (Tonga) to Pulotu (an island said to be somewhere to the northwest and to be the home of many of the gods and of the souls of departed chiefs) are fairly common. Hikuleo, the ruler of Pulotu, is portrayed sometimes as a female divinity, sometimes as a male. In certain of the Pulotu tales the visitors are forced to undergo ordeals.

Only one tale of the Orpheus and Eurydice type was obtained. In it 539 128 the roles are reversed. It is the wife who seeks the husband. This tale has been placed under the caption "Stories of Hina and Sinilau," as these two characters are prominent in it. (See p. 183.)

THE ORIGIN OF THE DEITY FEHULUNI[108] 539

Tokua mae i ai ha ongo matua mo ena fanau e toko hiva. Pea koe aho e taha iloange nae pekia ae taoketelele. Pea hili hono fai ia, pea toe pekia ae hoko; pea hili hono fai ia, pea toe pekia ae hoko o pehe pe, hokohoko i he ngahi aho kioa o au ki hono toko ono. Pea i he fai hono toko ono nae tala e he tanata aia ko hono toko fitu: "Mou nofo heni kau alu o vakai pe koeha oku tau pehe ai; he koeni kuo tau mei osi; naa oku ai ha taha te ne fetuku kitautolu." Koia naa ne tala. "Ko eku alu eni, pea e tuku hoku angaanga i he ana koe (ko hono hingoa ko Makatuuua); pea kau ka fueloa mai oua naa mou tanu hoku angaanga, kae tuku keu foki mai ki ai."

Pea ne too ha kiefau o vala, pea ne toki alu hifo ki Pulotu. Pea i he ene au ki Pulotu naa ne ilo ha fale pea mo ha afi oku kohu i tua. Ta! koe api ia o Hikuleo. Pea ne alu ki ai pea ne ilo he afi ha foi oku tunu ai. Koe hingoa oe foi ufi koe lokolokamangavalu. Pea ne pakii ha manga e taha (he nae mangavalu foki ae foi ufi), o kai. Pea hau a Hikuleo ke fokihi ene tunu. Ta! kuo mole ae manga e taha. Pea ne kaila o pehe, "Kohai ha taha oku ne ave aku mangai ufi; hange ko Tui Haatala oku kei i mama?" Pea ne toe totolo mai o toe pakii moe manga e taha. Toe hau a Hikuleo o toe fai ene kaila. Pea na

It is said that there were two parents that had nine children. And suddenly one day the eldest died. And after he was buried, then the next eldest died; and after he was buried, then the next eldest died and so on, continued day after day till the sixth was reached. And after the burial of the sixth, the man who was the seventh said: "You remain here while I go and see what is the matter with us; for we are nearly all dead; perhaps there is some one that is carrying us off." Thus he told them. "I am going, and I will leave my dead body in the cave (the name of which was Makatuuua: *maka,* stone; *tuu,* appear as a spirit; *ua,* two); and should I be away a long time don't bury my body, but leave it for me to return to it."

And he took a fine mat as a loin cloth, then he went down to Pulotu. And when he reached Pulotu he found a house and some fire that was smoking outside. Behold! it was the home of Hikuleo. And he went up to it and found a yam on the fire baking. The name of that yam was *lokolokamangavalu* (*lokoloka,* rough skin; *manga,* forked; *valu,* eight). And he broke off one of the forks (the yam had eight forks), and ate it. And Hikuleo came and turned the baking yam. Lo! one of the forks was gone. And he shouted and said, "Who is the person that has taken the fork of my yam; just like Tui

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[108] Told by John Havill. Recorded by E. E. V. Collocott. Translated by Miss Beatrice Shirley Baker.

114 aries Maristes (29), Hazlewood (24), Pratt (32), and, to a less extent, to other dictionaries of Polynesian languages.

In my possession is a book (7), in which are pencilled notes giving some
127 of the native names of plants, I think, by Mr. Crosby. I thank Mr. Crosby for this kindness to one who is a stranger to him. Yet comparatively few of the plants are thus distinguished, and it is to be hoped that recent botanical work in Tonga will fill in the large gaps. To Mr. E. W. Gifford I owe Graffe's very useful list of the birds of Tonga, with native, scientific, and many popular names. To him also am I indebted for some of the poems in this collection, and, jointly with Her Majesty Queen Salote Tupou, for a copy of the "Royal and Chiefs' Genealogies." The published papers of the late Rev. Dr. J. E. Moulton, and his unpublished papers (31) have provided much material. I would also thank my colleague, the Rev. R. C. G. Page, for frequent assistance. For the use of Tukuaho's Diary, I am indebted to his son, His Royal Higness Prince Tungi.

126 For the tunes I am indebted to my old pupil Mr. Manoa Havea, to my wife, and to Mr. S. Jackling, of Albury, New South Wales. Some airs were written down for me by Mr. Havea, and others were sung by my
123 wife from memory and written by Mr. Jackling. My wife's idiomatic and facile use of the Tongan language, her ability to place herself in relations of easy familiarity with the people, and her keen interest in all that con-
128 cerned them have made me her constant debtor. To Tongan friends my obligations are endless, and full acknowledgment is not possible; but in especial would I thank His Royal Highness Tungi, the late Hon. Tupoutoa, Miss Alice Ahio, many of my old pupils, both boys and girls, at the Tupou College, Nukualofa, and boys of the newer section of the Tupou College at Nafualu, in especial Manoa Havea, J. Havili, and F. Penitani.

But most of all do I owe to my friend and colleague at the Tupou Col-
538 lege, the Rev. John Havea. Tongan poetry, condensed, pregnant, is full of allusions which require an intimate knowledge of the circumstances referred to for their understanding. This applies to the compositions of contemporaries. Much of the language and many of the allusions of the poetry of an earlier, even comparatively recent, time are unintelligible to
124 most living Tongans. Without Mr. Havea's help this work would have been impossible. What there is of fair interpretation of Tongan ways of thought in it is owing to him, and I count myself fortunate to have had many years of close association and intimate friendship with a man so intelligently interested in the past and bravely hopeful for the future of his people. I would have this paper be a memorial of our many conversations, often extending far into the night, either in his room or in mine, at Nafualu.

7: McKern A-4,5 (1920-1921) 1929 OU9 Tonga OU9

Archaeology of Tonga

By W. C. McKern

INTRODUCTION

In Tonga, as elsewhere in Polynesia, there is little break between pre- 128
historic and historic culture. The archaeology and ethnology overlap and
blend. The present work, therefore, is a study of archaeological remains 128
which takes the fullest advantage of available traditions, ethnological evidence, 127
and historical accounts that relate to ancient structures.

As a member of the Bayard Dominick Expedition of Bernice P. 114
Bishop Museum, I was afforded the opportunity for a general but careful survey of Tongan archaeology during a period extending from September, 1920, to June, 1921.

The extent of my work would have been greatly lessened but for the 000
active interest and cooperation of Her Majesty the Queen of Tonga and Prince William Tungi, and for the sanction and assistance of the Tongan Government through the offices of the Premier, the Honorable Tui Vakano. My thanks are also due to Mateialona, Kalaota, Solomon Ata, Joele Pangia, Vaia, Tuita, Tamale, Malupo, Matauvave, John Havea, Uhatafi, Malakai Lavulo, Kautai, Fakatava, Mary Valevale, and many other Tongans whose services are no less appreciated. Among European residents who rendered me valuable assistance are Mr. John Clemens, Mr. A. Cunningham, Mr. W. H. Murley, Mr. W. Scott, Mr. A. B. Wallace, Father Deguerry, the Rev. R. C. G. Page, the Rev. Saunders and the Rev. E. E. V. Collocott.

The spelling of native names and terms as used in this paper follows that 128
adopted by Gifford (10, p. 4).

The Tongan archipelago comprises more than one hundred islands. The 133
largest of these, Tongatabu, has a maximum length of about 25 miles. Many of the islands are so small as to call for a statement of size in terms of rods rather than miles.

With the exception of a numerically small chain of volcanic islands, bordering the easternmost margin of the archipelago, Tonga is formed largely of coral rock. Some islands, however, consist of a base of volcanic tuff superficially covered with coral and foraminiferal limestones, and attain not inconspicuous elevations. Eua, for example, is 1,070 feet high. The tallest of the volcanic islands, Kao, attains an elevation of 3,380 feet. Most of the islands, however, are relatively flat and low.

The archipelago is naturally divided into three groups of islands, inter-

[p. 3]
[no pp. 1-2]

133 valed by considerable stretches of water. These groups, from north to south,
are Vavau, Haapai, and Tongatabu. Of the three, Tongatabu has the largest
land unit in an island which lends its name to the entire group. This island
was, culturally and politically, the center of Tongan life.

121 Archaeological investigation, extended to cover as much of each of the
172 three geographical divisions of the Tongan archipelago as available time and
184 the distribution of favorable sites warranted, failed to discover any important
128 differences between the archaic remains found in different islands. This
cultural uniformity renders it desirable to treat the whole of Tonga as a unit
in the present report, rather than to give separate archaeological surveys of
any sort of geographic subdivisions.

144 The inhabitants of Tonga are, predominantly, full-blooded Polynesians.
161 Probably never much exceeding twenty-five thousand in number, the Tongans
have approximately that population today.

128 An apology is perhaps due for presenting my subject in a form which
requires the reader to peruse the entire detailed outlay of evidence in order
to obtain a gist of the pertinent facts and the related conclusions. It seems
to me that most of the detail is essential to a general understanding of involved
problems, and that conclusions, even general remarks, are devoid of meaning
when separated from the detail of listed phenomena. I have, therefore,
included all the involved data in the running discussion, in order to give the
specifically interested student an intelligent, unabridged representation of the
field.

172 On first consideration, the archaeological outlook in Tonga is not promis-
114 ing. The student finds here a mottled field, poor in stratified deposits
attributable to human sources, but rich in artificial monuments of earth and
114 stone. The greater part of these have not been carefully examined by pre-
ceding investigators. Such as have been found mentioned in published
accounts have generally been treated as of unknown or doubtful origin.
173 Local mythology has taken full advantage of these wonders and has accounted
for their presence in many fanciful ways. There is, however, a much more
plausible group of traditions, practically free from dependence upon super-
human agencies, accounting for these structures in a not illogical manner.
173 These traditions, surprisingly consistent in their wide repetition and flatly
114 historical in style, have too frequently been overlooked altogether or pur-
posely disregarded by investigators.

STRUCTURAL FORMS

MOUNDS AND PLATFORMS

172 34 Although no Tongan mounds are constructed entirely of stone, many mounds of earth have sides faced with stone retaining walls. Most of the mounds take the form of a truncated cone with flat top and sloping sides. Several mounds might be described as foreshortened cylinders terminating in flat tops marked by a large, cylindrical central pit with retaining walls of stone. One mound observed resembles a truncated pyramid with four stone-faced sides, which slope rather abruptly towards the flat top.

172 333 34 The stonework of the truncated cones differs radically from that of the cylindrical mounds. Most of the cone-shaped mounds are surfaced with rough stones piled indiscriminately one upon the other—a sort of cyclopean masonry. In some of these mounds, and in one truncated pyramid, the stones are roughly rectangular slabs. In some of them this technique is marked by smooth stone fitting, the stones exactly shaped and sized to occupy a certain position and to produce a continuous, regular veneering. All of the cylindrical mounds observed are retained by walls constructed after one pattern and of similar materials; rough pieces of limestone are piled one upon the other in a vertical wall of uniform width.

Platforms are of two types; round and rectangular. The rectangular type includes single platforms and storied platforms, or stepped pyramids. All platforms whether single or storied, round or rectangular, are earth filled enclosures retained by walls of upright slabs in contact at adjoining edges. In some of the smaller structures, the slabs are natural flat pieces roughly broken about the edges and but indifferently fitted together. In most structures, however, the stones of the retaining walls are dressed and sized, producing a smooth, unbroken wall of continuously even height, and fairly even thickness.

172 128 34 The distinction between low mounds with flat tops and platforms may seem arbitrary and vague. It is recognized here because of a corresponding distinction made by the native descendants of those who built these structures. The Tongans almost invariably base their nomenclature upon purpose and use rather than upon form or appearance, and it so happens that the term *sia,* which like the English "mound" refers to small elevations both natural and artificial, is generally applied to structures made for certain uses, but is not used to designate the types here described as platforms. Of all the structures observed, only those classified by the natives as *sia* lack the upright slab retaining walls which characterize all other earth and stone structures.

491 172 The tops of some mounds and platforms were made accessible by roadways, or approaches, ascending gradually from the surrounding land—the

ARTIFICIAL MOUNDS AND PLATFORMS

CLASSIFICATION

172 Most ancient Tongan structures of mound or platform type may be
34 classified as belonging to one of four groups: (a) *esi* mounds; (b) pigeon
128 mounds; (c) house platforms, and (d) grave mounds. A few mounds with strong individual peculiarities and a few difficult to identify are, for convenience in presentation, treated as one group, (e) unclassified mounds. In this class are included the very rare stone walled house mounds. In general, this classification is based both on purpose, as recorded by tradition or determined by history, and on structural form. Purpose seems to have determined basic peculiarities in form.

ESI MOUNDS

172 An *esi* mound is essentially an area (usually in the form of a raised
345 platform) reserved as a place of resting or siesta for members of a particular
[565] chiefly family, or for a particular member of a chiefly family. It was situated at a favorable point commanding a splendid view or frequented by cool breezes, or at a natural resting place intermediate between two important
[565] stations of a long journey. The use of these mounds seems to have been connected with the idea, prevalent in Tonga, that the exalted social position of the chieftain should be accompanied by material exaltation, and also, that social superiority involves the privilege of isolation from common contacts.

345 The use of *esi* mounds has survived, to some extent, as a modern complement
[178] to ancient tradition. At Vaini, Tongatabu, a rectangular platform
[643] which consists of concrete walls enclosing earth and sand, is the *esi* of King George I Tupou, built at his command in the nineteenth century. Small *esi*, consisting of prone coconut logs disposed to retain fills of sand, were observed at various places on the island of Tongatabu and were reported to be in regular use.

345 There are two radically different structural types of *esi*, the rectangular
172 and the circular. The most common form is the rectangular platform, of which the poorest are those with retaining walls of coconut logs, perhaps the primitive type. The best examples have retaining walls of dressed stone slabs and attain imposing dimensions. The circular structures, with few exceptions, are retained by walls of undressed stones piled roughly one upon the other, converging toward the top of the mound.

Rectangular platform *esi* were seen in all three of the island groups which constitute Tonga and the finest two circular platforms are in Vavau and Tongatabu—at opposite ends of the Tongan archipelago (pp. 11, 18). The distribution of *esi*, therefore, is not related to structure. All the circular *esi* 345 observed are apparently of ancient origin, but some of the square *esi* are 172 certainly of quite recent origin. According to this very unsatisfactory evidence, the circular type might be interpreted to be the older of the two.

Tradition, history, field investigation, and comparative study have led to [128] the classifying of the following mounds as *esi*.

1. Circular mounds on the east side of Euakafa Island, Vavau, at a spot where cool breezes and a fine view are dominant features (fig. 1).

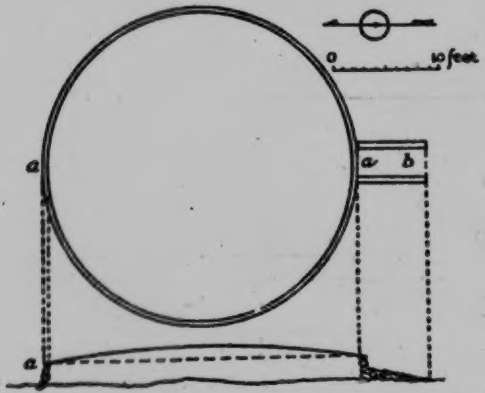

FIGURE 1.—Plan of *esi* mound on Euakafa Island, height 3 feet, diameter 30 feet. *a*, retaining wall 2 feet high, 1 foot thick; *b* approach 6 feet long, 4 feet wide.

One mound is partly surrounded by a retaining wall made of blocks of undressed coral limestone piled one upon the other. The top of the mound is red earth brought from a nearby place. An approach of earth, supported by walls of undressed stones, ascends the mound from the south.

About 40 feet south of this mound is the second mound, very like the first in size, general shape and natural setting, but lacking the retaining wall and inclined approach.

2. Mound situated on Kafoa, a hill 420 feet high about 2 miles northwest of Neiafu, Vavau (fig. 2).

Kafoa is a circular earth mound retained by walls of rough coral stones which vary greatly in size. In the approximate center of the top is a slightly oval pit lined with rough coral stones that act as a retaining wall.

From the northwest, an earth road rises from the hill top to the top of the mound. [491] The dirt sides of the roadway observe an angle of about 45°. Many large toa trees [137] (*Casuarina*), not indigenous to this locality, are growing about the top rim. Kafoa commands the best view to be had of Vavau and it is said that a cool breeze is to be enjoyed here at all times.

who lived there until Pau died and the causeway project was abandoned. 173
This narrative does not account for the central pit of the mound (Tongan 172
houses did not have pits within them), nor does it explain why the Tui 345
Tonga Fefine should have had such a grand foundation for her house at 342
this place of temporary dwelling, while neither she nor any other Tongan
was accustomed to large elevated platforms at their places of permanent
residence. There is no evidence on the Tukutonga side of the lagoon of 173
the causeway said to have been begun by Pau and if there is any founda- 172
tion of truth to the story it seems more probable that a mound, already in
existence, was selected as a suitable site for the house of the Tui Tonga 345
Fefine on account of the low, wet ground. But this does not explain the
purpose for which the mound was originally built. Cook says definitely [175
that it was called an "etchee" *(esi)* belonging to the Tui Tonga of his time, 643]
Poulaho, and that it was of "no modern date," which information sheds
no light upon the builder or the original use of the structure. It is here
classed with *esi* because of its remarkable similarity to Kafoa. It may be
that some mounds, originally built as pigeon mounds, were converted through
use into *esi*.

PIGEON MOUNDS

CLASSIFICATION

Pigeon mounds or *siaheulupe* (*sia*, mound; *heu*, pigeon snare; *lupe*, 172
wild pigeon), are natural structures, artificial structures, or artificial struc- 345
tures situated upon natural risings exclusively employed by chiefs and their 223
retainers as places to which wild pigeons could easily be decoyed and 565
snared.

Men of less than chiefly rank often snared pigeons for food using the *heu*, a large, two poled net which did not necessarily involve the use of any sort of mound. But pigeon snaring as participated in by chieftains was a highly organized sport for which the mound was deemed essential. As a matter of fact, the practical purpose of the mound is not altogether clear, unless it furnished the wielders of the *heu* net an increased elevation, and so increased their reach.

In describing the method of snaring pigeons, informants speak of two 172
types of mounds. Type I, present in all provinces where pigeon mounds 345
were located, possessed two essential features: (a) a circular platform of 223
stone, or of earth, supported by stone retaining walls, rising several feet 128
above the surrounding ground; (b) a centrally located pit averaging 20
feet in diameter, as deep as the artificial mound was high, and laterally
lined with perpendicular retaining walls of stone.

172 345 223 Briefly, the mound was used as follows: The sportsmen occupied the structure, some on the mound surface where they manipulated the *heu* poles, and some in the pit to take the pigeons from the snare. Captive pigeons, attached to long cords, were allowed to fly among the tree tops above the mound where they served as decoys to attract their wild kin. When the wild pigeons came, lured by the calls of the decoys, the *heu* manipulators dropped the net over them and brought them down into the pit, where they were caught and disposed of by the men assigned to that task.

The mounds of Type II lacked the large, deep, central pit of Type I. In its place was a depression 15 to 20 feet in diameter and seldom more than 1 foot in depth. One informant explained that the *heu* manipulators lay prone in these depressions, but such an explanation, unsupported by corroborative testimony, is of doubtful value. No good argument offers itself to show the practical necessity for a pit of any character in such structures, but the shallow type of pit seems especially useless. These shallow pits might be regarded as more or less useless survivals of the more archaic, deeply pitted mounds, but no evidence for such an assumption is apparent. In the following descriptions of pigeon mounds only artificial ones are included. 172 345 [128]

MOUNDS IN VAVAU

1. Kaufotutata, on the eastern outskirts of the town of Utungake, Utungake Island, Vavau, Type I.

[491] Kaufotutata stands on a natural rising overlooking the sea to the north. Its measurements are: diameter at base, 100 feet; diameter at top, 80 feet; height, depending upon ground contour, 3 to 7 feet. Its sloping sides are faced with a compact layer of rough coral stones. The pit, originally about 19 feet in diameter and 4 feet deep, has recently been filled to allow a house to be built. Its sides are vertically walled with stones like those used in the outer wall. From the south, a dirt road 20 feet long and 6 feet wide leads to the top of the mound. The stone work of the mound is continued along the road with similar slopes. This pigeon mound was built, according to tradition, by a prince of the Tui Tonga family named Moka.

Other pigeon mounds are reported from Vavau, but these were not located, unless Kafoa (p. 11) served at times in that capacity.

MOUNDS ON UALEVA

[223] [173] Judging from the number of pigeon mounds, the island of Ualeva, Haapai, must have had at one time an enviable reputation as a place for pigeon snaring. Local informants agree that these were built by Matauvave I, who was the first known administrator of Haapai to be appointed by the Tongan kings. Geneological evidence places the time for his assuming this office at about 1540-1550 A. D.

128 The following descriptions include all of the pigeon mounds which a
172 thorough survey of the island could discover. The accuracy of the names
345 cannot be vouched for, as they were supplied by a single informant, the only
[124] man found who professed to have any knowledge of the names. Three mounds, Nos. 8, 9, and 10, are classed as pigeon mounds because closely associated with structures known to be pigeon mounds. Native informants were of the opinion that they were used by the pigeon snarers in some capacity, possibly as temporary dwelling sites for the chiefs engaged in the sport. They are like the pigeon mounds which they neighbor except for the absence of any trace of a central pit or basin.

172 2. Finevalafililolo, in central southern Ualeva, Type II (fig. 6).

345 Finevalafililolo is composed of a mixture of sand and earth. The centrally placed pit has retaining walls of dressed rectangular slabs of coral stone averaging 3.5 feet in length, 0.7 foot in thickness and standing 2 feet out of the ground. The flat floor of the basin is of earth. The mound is surrounded at irregular intervals by ten funnel-shaped pits averaging 10 feet in depth and 25 to 30 feet in diameter, situated from 25 to 75 feet from the mound base. They are said to have furnished the earth from which the mound is constructed.

3. Siaulufotu, at the south end of Ualeva Island, Type II (fig. 7).

The sloping sides of Siaulufotu are surfaced with stone work consisting of an inner base of rough, loosely piled fragments and an outer coating intact only in places, of rectangular, roughly dressed slabs laid flat, their edges fitting together haphazardly (fig. 7, *c*). These slabs are 2 to 6 feet long, 1.5 to 4 feet wide and 0.3 foot to 0.5 foot thick. The largest slab in place measures 6 by 4 feet by 0.5 foot. The central depression is surrounded by rectangularly dressed slabs of stone averaging slightly more than 3 feet in length, 0.6 foot in thickness, and which stand 2 feet above ground and
[491] 1 foot below the bottom of the flat earthen floored basin. A steeply inclined dirt roadway from the northwest leading to the top of the mound is paved with rough stones of varying sizes, their flat sides turned upward to make a comparatively smooth surface.

[351] Siaulufotu is entirely surrounded by a ditch or series of connected pits, 30 feet wide and 12 feet deep, which stands 40 to 50 feet from the mound base. It is thought to have furnished earth for the construction of the mound. Near the northernmost
172 base of the mound is a flat bottomed well called Vaisioata (Water-mirror). Its walls
312 are of loose, roughly piled stone and slant outward from the base at an angle of about 15° from the perpendicular. The rim of the well is 8 feet in diameter and the depth 3 feet, of which 1 foot is under water. The bottom appears to be partly filled with loose debris. About 50 feet east of the mound was found a quarry site where stone for
172 the structure may have been obtained. At this place about a foot of surface soil had
316 been removed, exposing coral "sandstone" which has been cut through in a way to suggest the removal of rectangular slabs.

172 4. Unnamed mound, Ualeva Island, Type II.

345 This mound consists of a circular pile of earth with a horizontally flat top. It is 3 to 4 feet high and has a base diameter of 82 feet and a top diameter of 72 feet. The earthen floor of the basin is horizontally flat. Its sides are supported by dressed rectangular slabs of stone practically all the same size, about 3 feet long, 0.6 foot thick, and 2 feet out of the ground. Several large funnel-shaped excavations near the mound probably indicate the source of material for the construction.

172 764 The mounds vary considerably in size. One called Huluipaongo (*hulu*, dry leaves; *paongo*, a vine producing the *hulu* leaf, now growing plentifully about the mound), is situated near the southwest point of the island of Lifuka, Haapai. It is 15 feet high, with a diameter of 40 feet at the top [175] and 110 feet at the base. This mound contains the tomb of the Matauvave family, and as the first Matauvave was appointed governor of Haapai by the Tui Tonga Kauulufonuafekai at a date approximating 1540, was probably built in the sixteenth century.

An ancient *faitoka*, situated at a place called Houmakalae near the town of Otea, Kapa, Vavau, is 16 feet in height and 100 feet in base diameter. It is called Avatongo (*ava*, crevice; *tongo*, mangrove shrub), but no accurate information was found regarding its history.

The average *faitoka*, however, is smaller and is well represented by that called Kelekelemeifisi (*kelekele*, earth; *mei*, from; *fisi*, Fiji), situated on the southern outskirts of the town of Maofanga, Tongatabu. It has a maximum [173] height of 8 feet and a base diameter of 75 feet. It is the burial place of Lavakahaatuukau, an important chieftain who moved to Maofanga from Mua and there built this *faitoka*, according to tradition, exclusively from earth brought from Fiji.

[217] The Tongans maintain an admirable respect for their ancient dead, a respect which is strengthened by well kept genealogical records, by means of which present day inhabitants trace their descent from those buried in many [128] of the ancient tombs. Archaeological excavation of *faitoka* is prohibited and a thorough study of stone vaults (*fonualoto*) is therefore impossible. The one vault available for observation, though not in a *faitoka*, probably closely resembles it in every particular (p. 50).

172 764 127 I am indebted to Mr. Guttenbeil of Niafu, Vavau, for a description, based on first hand observation, of a *faitoka* vault. Mr. Guttenbeil witnessed the burial of a boy related to Maatu in the vault of the ancient Maatu *faitoka* on the island of Niuatoputapu. According to his account, confirmed by Maatu and other qualified informants, the vault had not been used for several generations and its exact whereabouts in the more recent burial ground, which had come to practically cover the *faitoka*, was known only by one old 172 764 woman. She indicated the place to dig. The workmen dug through many more modern graves, placing the exhumed bones carefully to one side. Finally they came to the flat stone lid of the vault, which was 15 feet long and 10 feet wide. It was found to be so heavy that all attempts to remove it failed. Accordingly, one end was cut off to afford an opening. The narrator with others entered the vault. It had four perpendicular slab walls and a horizontally placed slab for floor. The stones were smoothly dressed. A skeleton lay prone, face up, in the center of the vault floor. This they reckoned to be the remains of the Maatu who built the tomb. Around the

central figure on every side were numerous skeletal remains so disposed as 172
to imply that the individuals represented had been placed sitting about the 764
walls, facing the center. These were reckoned to have comprised the "companions," those who were elected to accompany the dead chieftain, as servants, to the world of the dead. There was about 1 foot of fine, dark colored dust covering the floor, the probable remains of material goods, such as fine mats and tapas, buried with the dead out of respect to his wealth and station.

Mariner (16, vol. 1, p. 144) gives the measurements of a vault observed 127
in Haapai as 8 feet long, 6 feet wide, and 8 feet deep. 172

764

LANGIS

DISTRIBUTION AND GENERAL FEATURES

Native traditions and records name 45 langis, 37 are on Tongatabu, 6 in
the Haapai group and but 2 in Vavau. Of the langis on Tongatabu, 28 are 172
in or near the town of Mua, the modern survival of Lapaha, the ancient 764
capital of the Tui Tonga dynasty.

All the 45 langis referred to by combined sources of information were [127]
actually examined, although specific identification of some is doubtful, and [128]
for a few of them was not attempted.

In structural type, langis do not adhere to a uniform technique warranting group classification. Some langis are not to be distinguished, structurally, from *faitoka*; others are composed of from one to five rectangular platforms, each retained by perpendicular stone walls. Where a plurality of platforms occurs, the smaller are mounted upon the larger in regular succession, according to corresponding differences in lateral dimensions, to form stepped pyramidal structures. Many of these are of imposing size. One or more stone vaults, entered from the flat top of the structure, are present in most langis, but there are exceptions to this rule (pp. 55, 114).

The one attribute which all langis share, the one factor which serves to 172
group them, is use; they are invariably the tombs of important members of 764
the Tui Tonga "family," which includes not only the immediate family of the
reigning king but also the family of the Tamaha, of the Tui Tonga Fefine 644
and of certain closely related chiefly families such as that of the Tui Haatakalaua. However, in langi burials there was no confusion or uncertainty as to rank.

All stones in the retaining walls and also in vaults, judging from reports 172
and from the single vault examined, are rectangularly dressed and fashioned 764
of coral "sandstone" or reef limestone. Of the two materials, "sandstone" by far predominates.

Both Cook (4, vol. 1, pp. 312-314) and Forster (9, vol. 1, pp. 451-452) [175]
observed and to a certain extent described some of the langis at Mua, Tonga- [114]

172 tabu, although they mistook these structures for variations of the *faitoka*
175 which they had seen elsewhere. Both describe the *faletolia* as intact and
764 apparently kept in good condition on the langi tops, and speak of wooden
[114] images or representations of men which were seen on one of the langis.
D'Urville (5, vol. 4, pp. 279-280) also mentions something of the kind.
Cook describes the images in the following words:

> One of the houses, situated over a grave mound on a langi, contrary to what we had seen before, was open on one side; and within it were two rude, wooden busts of men; one near the entrance, and the other farther in. On enquiring of the natives, who had followed us to the ground, but durst not enter here, what these images were intended for? they made us as sensible as we could wish, that they were merely memorials of some chiefs who had been buried there, and not the representations of any deity. Such monuments, it should seem, are seldom raised; for these had, probably, been erected several years ago. We were told that the dead had been buried in each of these houses; . . .

If the example mentioned by Cook is not unique, this practice of erecting wooden or other effigies over the langi or *faitoka* was at least a most unusual one.

172 To ascertain to what degree, if any, the langis are oriented with reference
764 to any recognized standard, the trends of the walls of thirty rectangular
langis were recorded. According to compass measurements, the direction of
[126] the northwest walls and that of the approximately parallel southeast walls
vary from N. 9° E. to N. 40° E. One wall of Otalafava trends N. 74° E. The trend of the northeast and the southwest is likewise highly variable—N. 50° W. to N. 82° W. Thus the variability exceeds 30° out of a possible 45°. Furthermore, little attention seems to have been given to corners; in the 30 langis measured, the corner angle varies from 82° to 99°. These figures make it obvious that the alignment of the langis is out of accord with any standard system of orientation.

There is no possibility of doubt as to the origin and purpose of *faitoka* and langis. They are the burial places of Tongan chieftains who governed the ancestors of the present native inhabitants from a remote prehistoric period into historic times. Some of the *faitoka* are still in use. The workmanship envolved is not such as to suggest any foreign or lost art, but rather, logically conforms to the primitive methods and tools which the Tongans are known to have had, and generally harmonizes with the state of primitive Tongan culture.

STRUCTURAL TYPES

172
764 To simplify presentation, it seems advisable to treat the various langis as
128 constituting six distinct structural types (fig. 17). Although there are many

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variations from the type forms, none are so radical as to render the classification void of definite meaning and usefulness.

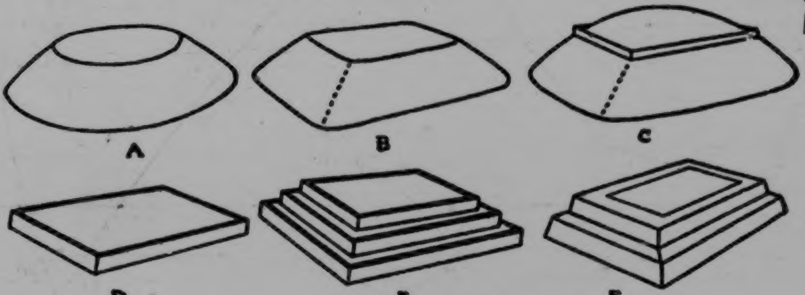

FIGURE 17.—Sketch illustrating six types of langis.

Type A. A conical mound of earth, symmetrically proportioned, with sides sloping gradually toward a slightly convex top.

Type B. A truncated, rectangular pyramid of earth and sand with corners necessarily rounded because of the building materials used. In one langi (Makamaka) the horizontal outline of the structure is shaped like a D, rather than like a rectangular parallelogram. The sides slope at an angle approximating the angle of rest to a smooth, flat top. A surrounding ditch may or may not be present.

Type C. A mound of earth, rectangular in base cross section, with sides sloping upward to a somewhat conical top. Intermediately between the base and the top of the mound is a low, perpendicular, rectangularly disposed wall of upright, dressed slabs of stone. These stones are of equal height and thickness and are closely joined end to end to effect a very smooth lineation.

Type D. A rectangular platform of earth, low and flat, supported on all sides by a continuous, perpendicularly disposed retaining wall of well matched and closely fitted dressed stones. These stones are invariably slabs placed on edge.

Type E. A stepped pyramid composed of two to five Type D platforms of regularly diminishing size placed the smaller upon the larger. Intervals between the base of the surmounting platform and the top of the foundation platform are uniform on all four sides, and where more than two steps are present, the depth of succeeding steps remains approximately constant.

Type F. Represented by a single langi, is like Type E, save that the stone retaining walls enclosing the various platforms, excepting the top platform, are sufficiently wide to include the entire width of the step, thus effect-

172 764 ing a lateral surface of unbroken stone, rather than one marked by vertical walls of stone and horizontal surfaces of earth.

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DESCRIPTION OF LANGIS

The following list includes the Tongan langis identified by name and four langis (Nos. 42-45) for which informants had no name. The list also includes four names, Koolonamu, Tamatiu, Tongamanatu, and Tauhakeleve, which could not be definitely associated with structures. The coincidence of four unnamed langis and four unclaimed langi names, applying to the specific Lapaha group of Tongatabu, is, to say the least, most agreeably surprising. Numerical discrepancies might be expected especially as some langis seem to have more than one name, and this very fact of multiple nomenclature influences me to accept the coincidence in question as of doubtful implication. Certainly, it does not necessarily follow that the four unattached names apply to the four nameless langis.

172 764 1. Atea, on the south side of the lagoon on the island of Nomuka, Haapai. Type D.

The measurements of Atea were, unfortunately, lost but the following figures are approximately correct: the sides average 50 feet in length; the retaining wall is less than 1 foot in apparent height and about 0.7 foot in thickness; the stones constituting the wall average 3 feet in length. The vault is concealed and no surface indications of burial are apparent.

[173] [644] Atea derives its name from Ate, a wife of one of the Tui Tonga residing on Namuka, for whom the tomb is said to have been built. Tradition, however, says that she is not buried there but in the *faitoka* Takahilipakisi at Maofanga, Tongatabu.

2. Faapite, at Mua, Tongatabu, Type E (fig. 18).

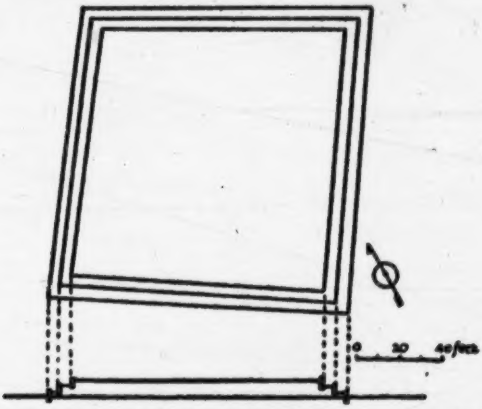

FIGURE 18.—Plan of langi Faapite at Mua, Tongatabu, height 6.5 feet, northeast base 133.5 feet, southeast base 141 feet, height of steps—bottom 3 feet, second 2.5 feet, top 2.7 feet.

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This list does not pretend to be exhaustive. It is intended, rather, to illustrate the general structure of Tongan fortifications and the detailed features of some of the finest examples.

ROADS

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Not least among the structural peculiarities of Tonga are the sunken roads. Their dimensions renders it highly improbable that they are the result of the wear of repeated travel. Their features suggest, rather, deliberate artificial excavation, although no good reason for building a ditch to serve as a road suggests itself. At first I thought they were courses for the game of *sika,* in which specially constructed spears were bounded along over specially prepared ways. But the great length of one of the roads, and the steep ascent of the other, renders such a use improbable. The Tongans insist that they are roads and I am not prepared to contest their views. Two of these peculiar highways were examined.

Halamate (*hala,* road; *mate,* dead), probably a recent appellative, extends lengthwise from end to end of the island of Uáleva, Haapai, a distance of several miles. It has the appearance of a square-bottomed ditch with the removed earth banked on either side. Its dimensions are 2 to 3 feet in depth, 6 feet in width at the bottom and 12 feet across the top from bank to bank. The course, as marked by a heavy growth of shrubbery along the bottom and sides of the road, follows a consistently straight direction.

The other road ascends the western slope of the hill Kafoa (p. 12) on the island of Vavau. It rises straight from the Pangaliki shore to the ridge top just below the hill. The floor of this square-bottomed excavation is about 3 feet wide and is 6 feet below the tops of the lateral embankments. The embankments stand at an angle of about 45°.

EXCAVATIONS

LOCATIONS

172 Available sites for archaeological excavations in Tonga are of two kinds,
114 old burial places and kitchen middens. The burial places, though plentiful
enough, are so definitely remembered in the folk history of the people that,
[769] to their minds, excavation would be no less objectionable than the desecration
of a modern cemetery. The kitchen middens are so few in number and
[121] represent such small accumulations of debris, both in area and in thickness,
that only the determination to leave no possible source of information untouched made their investigation desirable. In the end, the discovery of pottery alone justified the amount of time and energy expended.

Exceptional conditions permitted the opening of five old burial places. One *faitoka* on the island of Motutapu and two langis on the island of Tongatabu were deliberately opened. One unknown *faitoka* was entered in excavating what was reported to be an old god-house *paepae*, on the island of Pangaimotu. The fifth burial place was accidentally uncovered in excavating a kitchen midden at Nukualofa.

The kitchen middens excavated are: 1 at Nukualofa; 1 on the island of Pangaimotu; 2 in caves on the island of Eua; 1 in the town of Mua; 1 on the island of Motutapu. All of these are in the Tongatabu group; no kitchen middens of any description rewarded the search in the Haapai and Vavau
[128] groups. The results of excavations are included in the following brief descriptions.

PANGAIMOTU SITES

KITCHEN MIDDENS

133 The island of Pangaimotu, situated about 2¼ miles northeast of Nukualofa, has an area of less than one square mile and a maximum elevation of
311 about 15 feet. Although uninhabited, the island supports several very productive yam and fruit gardens, cared for and harvested in season by inhabitants from the main island.

On the southwest coast of the island, the sea has encroached upon the
133 land to produce a perpendicular, earthen bank above the beach line, 2 to 6 feet in height and several hundred feet in length. Inland from this exposure, the land surface dips downward, indicating that the sea has cut in to the very center of the original embankment. The foundation of the mound seems to have been a sand dune. The upper strata, to a varying depth, are com-
172 posed largely of ash, charcoal, marine shells, and burnt coral rock. Near

172 fish and small land vertebrates. The top 0.5 foot produced many scraps of rusty iron and several pieces of green bottle glass. One small potsherd was found 0.4 foot below the surface (p. 115). The remaining 0.5 foot contained no evidence of European culture. It produced three small potsherds. Below this was encountered a layer of clean beach sand 0.3 foot in thickness, entirely free from evidence of human occupation. This sand deposit rested upon another stratum of kitchen refuse, 0.4 foot in thickness, which besides the usual assortment of shells and bones, produced one potsherd; below this was the dark colored sandy loam characteristic of the surrounding land surface. This was traced to rock bottom without discovering any further kitchen midden material.

Pottery was present in all strata containing kitchen refuse. The small size of the excavation, and the small quantity of material obtained will not allow a consideration of quantity relative to depth. The abrupt disappearance of modern materials below the first 0.5 foot indicates a formation preceding European contact. No culture break was apparent between the two sand-intervaled refuse deposits.

TONGATABU SITES

Kitchen Middens

Tongatabu, the largest island in the Tongan archipelago and the center of both prehistoric and historic population, furnished the largest and most productive kitchen middens, as was to be expected. Three kitchen middens and two burial places were excavated here.

1. On the road connecting Nukualofa and Pea, horizontal strata of charcoal and ash are exposed in a quarry.

The face of this cut is, in places, 8 feet in height, 6 feet of earth resting upon 2 feet of bedrock. The top 2 feet of the earthern exposure proved to be part of an artificial bank erected a few years ago by European road builders. The true surface of the kitchen deposit, therefore, is 2 feet below the actual surface. The line of demarkation between these two formations was readily apparent.

[121] Two excavations were made at favorable spots in this kitchen midden: one 3 feet wide and 6 feet long; the other 3 feet wide and 4 feet long. Both pits were carried to rock bottom. From the true surface down, four distinct strata were encountered.

Stratum I, 2.1 feet thick, is made up of characteristic kitchen refuse, rich in charcoal, light-colored ash and burnt oven-rock; Stratum II consists of a bed of yellowish clay, 1.2 feet thick; Stratum III, 0.6 foot thick, is like Stratum I; Stratum IV, resting directly on bedrock, is like Stratum II. Stratum II alone was productive of culture data of any special interest. Thirty-seven potsherds, distributed evenly from top to bottom of the formation, were found there.

The interesting fact regarding the products of these excavations is the presence of a kitchen deposit stratum, devoid of pottery, lying below and clearly separate from the pottery bearing stratum. This would seem to indicate a culture period preceding the use, or common use, of pottery. The fact seems more suggestive when an additional fact is taken into consideration, that there was not a section of the surface deposit 3 inches thick that did not contain pottery, whereas the lower deposit was 7 inches thick. [128] However, the excavations were altogether too small in size to warrant the

drawing of too hard and fast conclusions from their products. A single 172
heavy rainstorm might result in the deposit of clay, such as Stratum II, [128]
so the occurrence of this stratum as an interval formation between Stratum I
and Stratum III does not necessarily denote an important time interval. The
absence of any indication of European contact at this site is noteworthy.

2. On the property leased by the Seventh Day Adventist Mission, in Nukualofa, on the Nukualofa-Pea road.

> This site is a broad, low mound nowhere more than 4 feet high and has large, irregular lateral dimensions. Pieces of pottery seen protruding from the vertical roadside exposure of the mound led to investigation. Near the highest point of elevation, [121] about 20 feet south of the front veranda of the mission, a pit 5 feet square was sunk to a depth of 2.8 feet, penetrating 0.5 foot into the indigenous soil below the base of the kitchen deposit.
>
> The surface, to a depth of 0.6 foot, was found to be composed of an unstratified mixture of ashy, carbonaceous soil, fine light-colored sand and coral gravel. In this surface material were found: many marine shells; a few bones of fish and small land vertebrates; a few scattered and badly broken fragments of human bones; a small quantity of burnt coral oven-rock; a few volcanic oven-stones; and 286 small potsherds. Some of the potsherds were actually lying on the surface, but the number of pieces gradually increased with depth.
>
> The remaining 1.7 feet of the kitchen refuse deposit is composed of soil which was absolutely free from the light-colored sand found above it, and very rich in light gray ash with some pockets of charcoal included. Moreover, this material is horizontally stratified. Traces of burnt coral oven-rock and a considerable number of volcanic oven-stones were present. No human skeletal material was found. Marine shells were plentiful, and some bones of fish and small land vertebrates. In all, this undisturbed formation produced 1,192 small potsherds, most of them from near the center of the deposit. In the top 0.4 foot were found 321 and in the bottom 0.7 foot only 131. A piece of artificially shaped shell and a similarly treated piece of volcanic stone were found 0.4 foot and 0.3 foot above the bottom of the deposit, respectively. In addition to the pottery found in the excavation, a hasty examination of the road-cut exposure [121] produced 30 more potsherds. These were found evenly distributed throughout the entire length of the cut, and on both sides of the road.

At this site 1508 pieces of pottery were found, 1478 in an excavation 5 feet square and 2.3 feet deep, excluding the bottom 0.5 foot of clay. That would make an average of more than 26 to 1 cubic foot of soil examined. Near the center of the deposit, the average increases to about 50 to 1 cubic foot. As indicated by the gleanings from the exposure bordering the road, it is highly probable that this heavy deposit of pottery is more or less continuous throughout the mound. If this quantity of pottery means anything, it points towards a very common use of pottery during the time when the deposit was in course of formation. A salient feature is the entire absence of any indication of contact with European culture.

But the relatively close contact of these potsherds should not be over emphasized. Very little burnt, coral oven-stone, characteristic of all other Tongan kitchen middens examined, were found in this deposit but many clean beach sand. The only interesting material found at this site was pottery (p.). There is no evidence of European contact. 172

Burial Places

1. At langi Tamatou (p. 55), a fortunate and unexpected opportunity affording itself, it was decided to excavate this structure, hoping thereby to determine the nature of the stone vault, to obtain specimens of primitive artifacts, to acquire data on burial methods, and to substantiate or confound the truth of the tradition that a wooden image constituted the only burial therein. 172 121

The opportunity for investigation was limited in scope of time to a single day. Consequently, the maximum available force of men, under the direct orders of a high Tongan chieftain, was set to work. The consent of these men to participate in such labor was only obtained through chiefly command. 172 114 [122]

In an endeavor to locate a vault, or burial deposit, holes 4 to 5 feet deep were sunk at intervals of 6 feet into the top of the mound. A large pocket of fine, light-colored sand, such as invariably surrounds native burials, was encountered near the center of the examined area. This pocket was extensively and carefully excavated but produced nothing. Further excavation produced equally negative results. 172 121

It is remarkable that such an extensive and well built stone structure, designed to be used as a king's cemetery, should lack a stone vault. According to tradition, all such structures are so equipped, and many of them are known to contain vaults. It is equally certain that Tamatou has no vault. 172 764

This tomb belongs to the small series of stone tombs preceding the great stone langis which occur so numerously in ancient Lapaha (p. 96). There is reason to believe that it is among the first stone langis to be built in Tonga and the absence of a vault tends to question the ancient existence of stone vaults in Tonga. Investigation on a scale and of a nature that present native standards will not tolerate would be required to furnish an intelligent answer to this question. [128]

My stubborn presumption in calling this structure a tomb, in spite of the negative evidence, seems justified by the extensive mythological reference to the place. Tradition states that no man was buried there and excavation supported this statement. A failure to locate the wooden doll said to have been buried there was to have been expected. The figure is said by some to have been made of the soft wood of the fau (*Hibiscus tiliaceus*), a material that would disintegrate and be lost in the surrounding soil in a relatively short length of time. 172 764 173

2. At langi Folokamanu. 172

There is reason to believe that Folokamanu is one of the oldest langis in Tonga (p. 69). A daughter of one of the early kings is said to have been buried here. 764

172 764 [121] In excavating, an initial attempt was made to locate a stone vault. No vault was found. By means of 69 feet of trenching averaging 5.3 feet deep, the central interior of the mound was shown to consist of fine, light-colored sand, including red coral sand of a variety to be found only on certain of the beaches of Vavau. Surrounding this central body of choice sand was an inferior grade of sand, although this too was clean and evidently of artificial placement.

Skeletal material was found in the central body of sand. One skeleton of an adult was found 2 feet below the surface of the mound, situated in a central position (fig. 48). The body had been disposed prone on the back, extended, with the head to the northwest. Immediately over this burial were the scattered and fragmentary remains of another, or other burials. According to all indications, the fragmentary material, which was in a very poor state of preservation, had been removed in excavating for the burial of the individual represented by the intact skeleton. Following this intrusive burial, the scattered bones of the disturbed burial had been indiscriminately thrown back into the burial pit on top of the new interment. No artifacts were found associated with the bones.

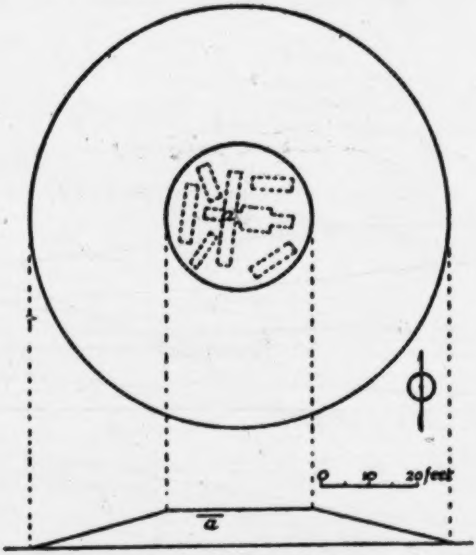

FIGURE 48.—Plan of excavations at langi Folokamanu: *a*, site of burials, dashed lines show position of trenches dug during exploration.

[128] The investigation of Folokamanu tends to support the conclusion that the early tombs in Tonga did not contain vaults; that vaults, whether introduced or of local invention, were included in the langi structure as a relatively late innovation. Such a conclusion is in need of much supporting evidence where it has but a little. My only apology is that other evidence, either positive or negative, is not available.

POTTERY

DESCRIPTION

172 323 [171]

Inasmuch as the discovery of pottery in prehistoric Polynesia has no known precedent, the facts regarding this Tongan ware are recorded here in some detail. The potsherds found number 1,587: 2 pieces on Pangaimotu, 5 on Motutapu, 23 pieces at two sites on Eua, and 1,577 at three sites on Tongatabu.

There are no obvious differences in pottery types found at different locations, or at different depths. At first examination, there appeared to be three types of pottery, found mixed and evenly distributed throughout all three of the Tongatabu sites and the Cave II site on Eua; the potsherds found elsewhere were too few to include all varieties. There seemed to be (a) a brick-red, very porous, brittle type, (b) a red-brown, harder, lightly burnished type, and (c) a relatively hard, black type. Excellent examples of each of these varieties could be selected easily from among any considerable number of sherds. But when it was attempted to assign every potsherd to one or another of these three classes, it soon developed that the extremes of each type blended so well into the extremes of the other types that no satisfactory lines could be drawn between them. Moreover, a given piece of pottery might have a black-textured interval, a brick-red inner surface, and a burnished brown exterior, or any other combination of the elements of classification. This made it necessary to include all specimens under a single type, paying careful attention to the large range of variations. The very small size of even the largest sherds contributed to give the appearance of several distinct types. 172 323 128

172 323

The pottery is highly porous, lightly fired, fragile ware. The consistently red ware is noticeably the softest, the smooth, brown ware denser, the consistently dark brown and black ware the hardest, showing the coinciding of greater density with deeper coloring to be largely indicative of the degree of firing. Thus, much of the variety in color is due to uneven firing. In some pots the exterior surface is probably soot-blackened from use as a cooking vessel and the interior surface discolored through contact with the cooking food. Some sherds that are uniformly colored a dead black through and through suggest dyeing. Most of the pottery is so porous that any liquid dye into which it might be dipped would thoroughly saturate it. Some examples of slipped surfacing are noticeable, usually a consistently thin, abruptly distinct coating of bright, unnatural red, or of pale terra cotta, upon a ground of decidedly different color.

The surfaces of the sherds range from moderately smooth to lightly burnished. The poorest type of surface shows light, lateral striation,

172 apparently due to finger-smoothing by the potter. Some spatula striations
323 are so smooth and regular as to suggest ornamental treatment. A good
[531] proportion of the material shows smooth surfacing of an inferior kind,
free from major irregularities but possessing no marked finish. Lightly
burnished surfaces are not uncommon and are usually associated with
darker coloring.

172 . Two methods of design were recognized, or one certain and a probable
323 second method. The certain type of decoration consists of narrow, incised
531 lines and accompanying series of dots, arranged in straight lines and small
curves which seem to have been made with a sharply pointed instrument.
This decoration is not common, occurring on only eleven pieces (Pl. VI, *A*).
The doubtful type of decoration consists of corrugations, placed laterally
about the vessel and roughly parallel. In two of the three pieces showing
this technique, the decoration is near the rim. The pottery is characterized,
from an ornamental standpoint, by its general lack of decorative treatment.

172 It is difficult to determine the original shapes of the pottery vessels
represented by the sherds, due largely to the prevailing small size of the
323 sherds. Attempts to fit sherds together to form larger elements were
128 entirely without profitable results. The curves of various pieces suggested
172 globose vessels 10 to 45 cm. in maximum diameter. Pieces ranged in thickness from 0.35 to 2.2 cm. The average thickness is about 0.75 cm. Other
323 pieces show a contact between a curving side and a flat surface, presumably
a flat base. The approximate angle defined by such surface bends is anywhere from 25° to 45° (fig. 49, *b*).

Most of the 106 rim pieces are horizontally squared, the others rounded. In most sherds the rim is greater in diameter than that portion immediately below its lip. Generally the walls of the vessel narrow immediately preceding the rim, and swell with its culmination. In some specimens this ultimate swelling is greater than the actual breadth of the rim. Some straight rims have a uniform diameter throughout. There are no positive indications of bottles, or vessels with true necks. Some vessels appear to have contracted tops but wide orifices. In others the rim curls back with an outward flare, resulting in a funnel-shaped opening (fig. 49, *a*). Two pieces, both from the Nukualofa site, show evidence of a coiling technique of manufacture.

DISCUSSION

The available evidence certainly indicates that pottery was used in prehistoric Tonga. At several scattered places it was found, in stratified deposits, occurring most plentifully in strata free from evidence of European contact. Where European culture-bearing strata occurred, the pottery was

172 it was brought from Fiji, but neither of these writers, whose works include
323 a great deal of material borrowed from previous reports, especially Mariner's,
127 were above expressing an opinion as a fact, even when the opinion was
114 appropriated from another writer, without personal investigation. Of the four writers, Cook was the most careful observer and authentic reporter, but his contribution is admittedly an opinion, of which Forster's statement is probably a reflection.

172 Burton (1, p. 52) has shown that the Fijians were the best potters in
323 Oceania and it seems highly probable that Tongan pottery had its original
171 conception in Fiji (Pl. VI, *B*), but it seems altogether improbable that the Tongans, using pottery rather extensively as it seems, went to Fiji for all
[181] their pots. The very character of the Tongan, with his alert resourcefulness, striking adaptibility, and eager readiness to learn, contradicts such a possibility.

Unfortunately, the amount and condition of the material available
[128] from Tonga is such that a direct comparison with modern Fijian specimens is not as profitable as could be wished. However, such a comparison bears some fruit.

Fijian pottery consists of red and brown ware, lightly fired (20, pp. 38-39). In these respects it is identical to Tongan ware. Fijian ware includes two distinct types, cooking pots and decorated vessels. The cooking-pot ware seems identical in material and surface to a large proportion
172 of the Tongan potsherds. The decorated ware includes many prettily de-
323 signed drinking cups, vessels with compound bodies, handled ware, and vessels with eccentric shapes, all more or less embellished with decorative
171 fillets and nodes in salient relief, and with incised lines and simple patterns
531 (8, pp 194-195). No examples of relief decoration, or of elaborate shapes, were found in examining the Tongan ware. Not even the broken fragment of a pottery handle was found. Incised lines and simple patterns decorate several of the sherds, but the design and technique differ materially from those I have seen on Fijian pottery, which is tempered with sand (24, p. 5).
172 The Tongan pieces show no apparent tempering of any kind, but may con-
323 tain a small amount of fine sand. The finer ware of Fiji is varnished, while still hot, with an application of the gum of the *dakau* (19, pp. 357-359).
171 It is doubtful whether this surfacing would have long survived under conditions accompanying the accumulation of kitchen refuse. In any case, no such surfacing was seen on Tongan ware although some pieces exhibit smooth, semi-glossy exteriors. A red surface was applied to some Fijian vessels through the use of a vegetable stain (24, p. 5). A similar treatment may account for the unnaturally bright red surfaces of some Tongan sherds.

7: McKern A-4,5 (1920-1921) 1929 OU9 Tonga OU9

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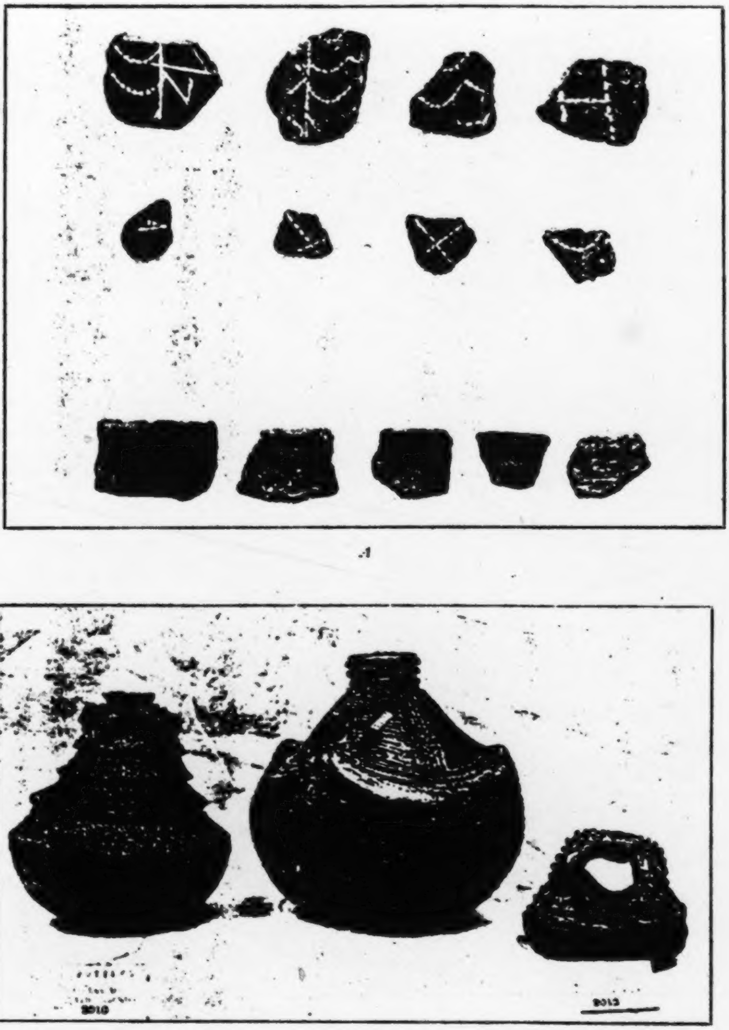

A

B

[128] *A*, POTSHERDS TAKEN FROM SITES IN TONGATABU, THE TOP TWO ROWS SHOW INCISED DECORATIONS (PAINTED WHITE TO FACILITATE PHOTOGRAPHY); THE BOTTOM ROW SHOWS RIM PIECES; *B*, FIJIAN POTTERY OF THE EINER TYPE, SHOWING SHAPE, INCISED AND MODELED DECORATIONS, AND VARNISHED SURFACES.

[End Plate 6]

8: Collocott & Havea M, I-5 (no date) 1922
OU9 Tonga OU9

121 pioneer missionary and explorer, who did much to make known 128 many islands of the Pacific. In the present compilation the collection of "Idiomatical Phrases" in the Tongan Vocabulary of the late Dr. Shirley Baker[1] has been included, as well as many [114] expressions scattered throughout the body of that work. Valuable as Dr. Baker's work is, it is unfortunate that he has printed whole phrases as single words, and without literal translations or explanations. In almost every instance we have been able to separate into their component words and explain these expressions, but there is a small residuum that has not been elucidated by inquiries made among the Tongans of today. Baker's work has been in constant use, and we desire to acknowledge our general indebtedness to it. In the few instances where we have not been able to explain phrases published by him exact quotations have been made.

ORTHOGRAPHY

104 In orthography we have followed what seemed to be the easiest method for European readers. The nasalized *g*, written as *g* in the various Pacific dialects, we have written as *ng*. The pronunciation of course is like that of *ng* in the English word singer, and not like that in finger.

In Tonga itself animated discussion ranges around the letters [777] *b* and *p*, two symbols which have had an unfortunate history. The [212] Methodist missionaries, who first regularly reduced the language to writing, used only *b*. The French Marists, who followed a few years later, wrote *p*. Subsequently an effort was made by Dr. Baker to combine the two. It is indubitable that there are sounds which strike the ear as an English *b*, and others as an English *p*, and yet others which it is extremely difficult for the ear to distinguish certainly as the one or the other. But the attempt to combine the two symbols has only introduced fresh confusion, as the language does not seem to contain two systematized series of [194] sounds, the one *b* and the other *p*. The Tongan ear finds the greatest difficulty in distinguishing an English *b* from an English *p*.

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[113] [1] Baker, Rev. Shirley W., An English and Tongan vocabulary, also a Tongan and English vocabulary. Auckland, N. Z., 1897.

8: Collocott & Havea M, I-5 (no date) 1922
OU9 Tonga OU9

104 writing of dual and plural pronouns, especially when preceded by prepositions, but it happens that these have not entered into our work.

SELECTION OF MATERIAL

In selecting material for inclusion in this collection we have
128 interpreted broadly our title of Proverbial Sayings. We thought
it best to commit errors of inclusion rather than of omission.
Interesting idioms that could not be regarded strictly as proverbs
have been given and a number of modern phrases also have been
192 included. The language is being affected by contact with
Europeans, mainly by the inclusion of foreign words in the vocabulary. For example, Fijian and Samoan words were incorporated
before the advent of the European, but this enrichment is being
accompanied today by a more than corresponding impoverishment
[191] in the loss of old words. This process is assisted by the teaching
of English in many schools, and by the inevitable desire of the
128 people to learn the language of the dominating culture. Some late
innovations, therefore, have found their way into this collection.
While our main interest has been in collecting genuine Tongan expressions, yet language is a living entity, and must be regarded in its entirety in any period. A genuine interest moreover attaches to any demonstration that the same psychological factors are at work in this age as in earlier times, and that the instinct of the epigrammatist has not been lost. Similar considerations lend value to the modern efforts of the native genius in poetical composition and story telling, although the later productions have not the historical interest of the earlier. Everything which reveals the working of the mind on the material presented to it has high worth.

Considerable pains have been spent in the effort to make this collection as complete as possible. Although some sources which might have yielded a little more have not been tapped, probably there are very few phrases current today that are not included, and there are many here which have passed out of general use. We feel the diffidence, however, that is inspired by the knowledge that forms of speech frequently become current in separate localities without passing into the general tongue of a whole people. We

8: Collocott & Havea M,I-5 (no date) 1922
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We
are fortunate, however, in that the Tongan collaborator has a wider 128 acquaintance than most of his fellows with the different parts of 114 the group.

Doubtless many ancient proverbs have perished. Every generation 538 makes and forgets proverbs. The double process lies patently before our eyes in the Tonga of today. We are familiar with it in our own languages. What we have of the old phrases is probably but a residuum of the expressions that in successive generations have received the currency of common speech and have again dropped into oblivion.

METHOD

In dealing with these proverbs the method adopted has been 128 to give a literal translation of the Tongan phrase, though not always strictly word for word. Although we have followed Tongan rather than English idiom, we have not adhered so closely to Tongan idiom as to render the English ungrammatical or unintelligible. Our aim has been to follow Tongan idiom within the limits of intelligible English. This has been much easier in the case of short phrases like those in this collection than it would have been in translating longer passages. Following this translation is such explanation as is necessary to make clear the meaning and application of the Tongan phrase. In many instances a typical form of application has been indicated, but these uses should be regarded as merely typical, and not exclusive. In other cases nothing has been said about application, but if our efforts to make clear the meanings of the phrases have been successful, the manner of their application will be manifest. Except where special circumstances for the use of expressions have been explicitly mentioned it is safe to assume that what would seem a natural application to a European would seem so also to a Tongan. Where possible we have added stories connected with the expressions. Although doubtless some true derivations are indicated by these tales there are probably some cases where they are the fictions of popular etymology.

In the course of the work we have occasionally suggested English colloquialisms, and even slang, as of kindred meaning to Tongan phrases. Many of the Tongan expressions are of such a

128 nature that they may be appropriately rendered by colloquialisms,
and sometimes the nuance of an English vulgarism approaches
195 that of a Tongan phrase. Both alike are the coinage of every-day
speech, but there is an important difference in that the Tongan
never speaks real slang; he always makes a proper use of true
[192] words. Of abusive language there is plenty, but it does not
consist of words not current in ordinary speech, but of offensive
[578] suggestions and invitations couched in very plain terms. Typical
Tongan billingsgate is the request that one eat things that nobody
likes to eat, very frequently one's elderly relatives, or excrement.
[192] But in all this there is no slang, no employment of unusual or
obsolete words.

TONGAN ORATORY

537 The average of oratorical ability of the Tongans is high. The
195 Tongan seems to know very little of the nervous embarrassment which frequently affects the European when he is unexpectedly summoned to his feet before an assembly. To European taste the delivery of a Tongan oration has little of the polish and artistry that lend grace to the addresses of European masters of speech, but the crudeness lies rather in the manner than in the matter. The Tongan usually speaks to his gathering in a loud voice; frequently he shouts at it. An elderly Tongan clergyman whose felicitous utterances had won for him a deservedly high place among contemporary speakers once boasted to an Englishman of the distance at which he could be heard when he was in his physical prime. The Tongan speaks and shouts as his feelings direct. If he is excited, gestures and voice betray it.

But in spite of some crudities the Tongan is keenly sensible to apposite and graceful language. After all the things which he values in a speaker are those which appeal to a European. He likes a voice that is *malie*, that is, musical and resonant; he asks that words shall be *malie*, that is, that the diction shall be graceful; and he also desires that the words shall *aji*, that is, shall literally be penetrating, shall pointedly and clearly express what it is desired to express. Of these three qualifications, the proportion of Tongan orators who possess the first, the resonant musical voice, is not large to European ears, though probably greater to Tongan ears.

In respect to the remaining qualifications, graceful language and 537
language that hits the mark, the average of Tongan oratory must 195
be rated high. Although in narrative Tongan tends to become more prolix than English and other European languages and has naturally a greater poverty of abstract terms, yet it is on the whole a vigorous and virile language.

The flowers of Tongan speech are perhaps best displayed on ceremonial occasions when orations are delivered before great chiefs, although to European taste these efforts are not so effective as less studied deliverances. Much of the gracefulness of diction is derived from a proper use of chiefly language, consisting of words applied only to chiefs and a skilful selection of terms befitting the august assembly.

In more ordinary speeches an appropriate use of chiefly words adds grace to the oration and phrases such as those in this collection lend not only grace, but are even more valued as belonging to the category of things that drive home one's point. A striking phrase, aptly chosen, makes the desired hit at a single stroke. Such phrases, indeed, are among the most valued adjuncts of oratory. The best Tongan addresses make large use of concrete illustration, and such phrases are frequently admirably fitted to be so employed.

DIVISION OF MATERIAL

We have broken up this collection into conveniently sized 128
blocks according to subject, but the division is rather arbitrary. For most of the expressions the section in which they should be placed has been clear; but some of the phrases might perhaps have been as appropriately assigned to some other division as to the one chosen. We trust that our choice of context will be found on the whole the most useful. A few cross references have been added, but it is obviously impossible to give real continuity to a collection of such diverse material. Within the several groups the arrangement is partly alphabetical, but this arrangement has been freely departed from in order to bring together similar phrases.

The classified table of contents^ makes apparent the propor- [538]
tions of phrases connected with the several spheres of human
activity and shows, as was to be expected, that the sea, seaman-

^ /No such table of contents was published with this text - Analyst/

8: Collocott & Havea   M, I-5   (no date)   1922
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128 [538] ship, and fishing furnished many proverbs. Under some of the most important and interesting headings the number of expressions is disappointingly small; but we have had to take the language as we found it.

ACKNOWLEDGMENTS

000 We desire to express our thanks to those who have assisted us. We owe much to the Rev. R. C. G. Page and to Rev. A. M. Sanders of the Methodist Mission, to many of the Tongan staff of the Mission, and to Rev. C. P. W. Brown, now of New South Wales, but at one time connected with the Methodist Mission in Tonga. Mr. E. W. Gifford and Mr. W. C. McKern, who visited this group from August 1920 to May 1921 as members of the Bayard Dominick Expedition of the Bishop Museum, have not only supplied such phrases as they met with in the course of their investigations, but have also assisted with friendly counsel. Our indebtedness to the Tongan Vocabulary of the late Rev. Dr. Shirley W. Baker, in which is incorporated the earlier Tongan Vocabulary
113 of the late Rev. S. Rabone, has already been mentioned. We have also derived considerable assistance from the Dictionnaire Toga-Français issued by the Marist Mission in Tonga (Paris, 1890), Pratt's Grammar and Dictionary of the Samoan Language (Fourth Edition, Samoa, 1911), Dr. Augustin Krämer's Samoa-Inseln (Stuttgart, 1902 and 1903), and to a less extent from Hazelwood's Fijian Dictionary (second edition, edited by James Calvert, reprinted, London, 1914).

GARDEN AND FARM

539 **1. A fakaamu mei:** Waking wanting breadfruit.

578 [262] [103] Apparently mildly abusive of the people of Haapai, who are supposed to be not so well supplied with yams as are the people of Tongatabu, and accordingly are more dependent on the breadfruit and other plants. There is an anchorage in the island of Lifuka in Haapai, very close to where the "Port-au-Prince" was attacked, if not the identical spot, called *Fakaamu-mei*, "Wanting breadfruit," said to owe its name to a chief who used to live in the vicinity, and who in some way became famous for wanting breadfruit.

The stars listed for the three sky zones are arranged in the
821 order given in Tukuaho's diary. I am indebted to Mr. E. W. Gif-
[128] ford for the following sailing directions given by the chief Maatu
802 of Keppel Island, which lies far north of the main part of the
[15] Tongan group:

In sailing south to Tongatabu, steer by Haliatoloa, Lua-ae-tangata, and Faipa.

In sailing north to Keppel Island, steer by Faipa, Aloua (two-oared boat), Telengehe, Fatanalua, Tupa, Tuutangaufi, and Vai-utu-ki-tua (water carried outside) of which a variant is Utufi-ki-tua (carried outside).

It will be noted that most of the stars named by Maatu are
821 included among those mentioned on the preceding pages but that
502 Maatu's list does not follow the same order as the list arranged by Tukuaho. No living Tongan known to me is able to point out the various stars named, but I am of the opinion that for a conjectural reconstruction of the system the order given by Tukuaho can be followed with confidence.

THE SUN

When the sun sets it is said by the Tongans to go down to
821 Lolofonua, the Underworld, the abode of the Maui, whence it
773 issues at its rising, but I have been able to find no explanation of the sun's daily journey nor of its path between the Tropics. If native accounts existed of these phenomena they are entirely or almost forgotten. One informant said he had heard a story of the reason of the sun's setting but had forgotten it.

It is said that someone named Loau, who lived long before the Loau of Haamea in Tongatabu so famous in Tongan tradition, traveled to Samoa and thence to Tonga in search of the sun. But beyond this bare mention I have heard nothing of this personage and his quest.

A Tongan tradition connects Jinilau with the sun—Jinilau being said to be the son of the sun and a mortal woman. Throughout Polynesia there is an association of Jinilau with Hina, and the Tongan tradition states that Hina was married to Jinilau. Clouds on the eastern horizon at sunrise are said to be placed there to ensure privacy for the sun and Jinilau as they talk together.

11: Sullivan D-4 (no date) 1922 OU9 Tonga OU9

A CONTRIBUTION TO TONGAN SOMATOLOGY

By LOUIS R. SULLIVAN

Based on the field studies of E. W. Gifford and W. C. McKern

INTRODUCTION

THE somatological studies in Tonga followed the plan previously used for 128
Samoa.[1] The field records were made by E. W. Gifford and W. C. McKern, assisted by Delila S. Gifford and show evidence of unusual care and discrimination; the mathematical computations were prepared by my wife, Bessie P. Sullivan. By arrangement between the American Museum of Natural History and the Bishop Museum the analysis of the data and the preparation of the results for publication constitute my share of the work.

Mr. Gifford and Mr. McKern call attention to the assistance rendered by 125
many individuals in Tonga and especially to the kindness shown by Their Majesties Queen Charlotte Tupou and Prince Consort William Tungi, who permitted themselves to be measured, thus graciously setting an example that was gladly followed by their loyal subjects. The Privy Council also greatly aided the expedition by 124
instructing the Minister of Police, Mr. Job Koho, to provide the required number of persons for each day's examinations.

The material on which this paper is based consists of complete descriptions 128
and measurements of 225 persons, 121 men and 104 women. Of these 10 were of mixed racial descent and their records were therefore discarded. Of the remaining 215, 184 were adults more than twenty years of age and 31 adolescents. The averages of non-quantitative descriptions are based on observations of young and old from the age of sixteen upward; the averages of all measurements except stature are based on measurements of persons of both sexes eighteen years old and upward.

By nativity the individuals examined are distributed as follows: Niuatoputapu 4; Niuafoou 1; Vavau group 25; Haapai group 40 (in detail, Haano 8, Nomuka 2, Uiha 4, Lifuka 6, other places 20); Tongatabu 148 (Nukualofa 47, other places 101); Eua 5; elsewhere 2. The material was not consciously selected and represents persons of all social classes and occupations. It may be regarded as a fair qualitative sample of the Tongan people.

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[1] Sullivan, L. A., A contribution to Samoan somatology: B. P. Bishop Mus. Mem. vol. viii, No. 2, 1921. [113]

Lot [p.133]

METHOD

All measurements were taken in accordance with the regulations of the International Agreement. The technique is described in some detail in my previous paper[3] but for the sake of convenience is here repeated in outline. Each measurement and index is numbered, and in the tables throughout this paper these numbers refer consistently to the same measurements. 128

ANTHROPOMETRIC CHARACTERS

1. Stature: recorded to the nearest centimeter (shoes removed).
2. Maximum head length: from the glabella to the opisthocranium.
3. Maximum head width.
4. Minimum frontal diameter: transverse.
5. Maximum face width or bizygomatic diameter.
6. Bigonial diameter at the angle of the mandible avoiding as much of the muscles as possible.
7. Anatomical face height; nasion to gnathion.
8. Nose height nasion to subnasale.
9. Nasal width; alare to alare.
10. Physiognomic ear length or height.
11. Physiognomic ear breadth.

INDICES

12. Cephalic or length-breadth index $= \frac{\text{measurement No. } 3 \times 100}{\text{measurement No. } 2}$

13. Transverse fronto-parietal index $= \frac{\text{measurement No. } 4 \times 100}{\text{measurement No. } 3}$

14. Transverse cephalo-facial index $= \frac{\text{measurement No. } 5 \times 100}{\text{measurement No. } 3}$

15. Zygomatico-frontal index $= \frac{\text{measurement No. } 4 \times 100}{\text{measurement No. } 5}$

(Sometimes designated as the jugo-frontal index)

16. Zygomatico-mandibular index $= \frac{\text{measurement No. } 6 \times 100}{\text{measurement No. } 5}$

(Sometimes designated as the jugo-mandibular index)

17. Anatomical facial index $= \frac{\text{measurement No. } 7 \times 100}{\text{measurement No. } 5}$

18. Nasal index $= \frac{\text{measurement No. } 9 \times 100}{\text{measurement No. } 8}$

19. Physiognomic ear index $= \frac{\text{measurement No. } 11 \times 100}{\text{measurement No. } 10}$

The anthropometric data were supplemented by observations on characters not quantitatively measurable. In view of the widespread misconception as to the nature of these characters and their value in somatology, it seems desirable to [121]

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[3] Op. cit.

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point out in some detail just what has been attempted in describing characters that do not lend themselves readily to measurement. The fact that anthropologists have carelessly spoken of "types" of hair form, hair color, or eye color has given the erroneous impression—not only to the general reader but to many anthropologists as well—that these types actually exist in nature and that it is possible, for example, to arrange all human eyes in four, five, or six color groups. Although it is universally recognized that all characters that lend themselves to actual measurement show a continuous variation with a tendency for a large percentage of the individuals measured to cluster around a median or mean point, yet it is difficult to dislodge the idea that other characters such as color or form, which cannot be accurately measured with existing apparatus, have a discontinuous distribution. The body height or stature of the Scots, for example, ranges from 158 centimeters to 186 centimeters and averages about 172 centimeters. Very few Scotchmen are as short as 158 centimeters and very few are as tall as 186 centimeters. In progressing from the extremes towards the mean the number of individuals at each step increases. It is apparent to anyone who has endeavored to classify characters which do not lend themselves to measurement that in them he is dealing with exactly the same type of continuous variation. When the metric rod cannot be applied, standards are set up along the range of variation, separated widely enough to permit of distinguishing each from the standard preceding or following it, and an endeavor is made to classify the material on this basis. The attempt to classify all existing forms of hair as straight, low waves, deep waves, curly, frizzly, or woolly, produces results very similar to those which might be expected if the stature of all men were measured with a rod graduated in 10 centimeter intervals from 130 to 190 centimeters. A man's stature would be recorded as 130, 140, 150, 160, 170, 180, or 190 centimeters; yet it is obvious that the stature of many men would actually be 135, 136, or 137 centimeters. The rod is not graduated finely enough to record the true distribution of the measurements. In a sense hair classes may be compared with these 10-centimeter intervals. For example, straight hair might well correspond with the 130-centimeter mark and woolly hair with the 190-centimeter mark or vice versa. But at this point the analogy breaks down. It is not certain that low waves, deep waves, and other hair forms correspond exactly to the 140- and 150-centimeter points. Roughly they probably do. But by far the greatest difference in the two methods and one that should always be kept in mind in the analysis of data is that in the classification of these descriptive or attribute characters, so called, the "metric rod" exists only in the mind of the observer and is by no means a uniform or universal standard. This lack of a fixed standard makes difficult not only the comparison of small differences found by different observers, but also to a lesser extent those found at different times by the same observer. As the standard is purely visual, constructed largely upon the experiences of each observer, it necessarily fluctuates constantly, varying with new experiences. 121 128

Despite the varying standards many of these non-measurable characters have proved to be of such great value in pointing out racial similarities and differences that no general somatological study is justified in omitting them. In pointing out the sources of error in data of this sort it is not my purpose to belittle their value or to imply that the size of the error is uniform for all characters. Although two observers might disagree as to whether a given sample of hair were low-waved, or straight, yet they would be much less likely to disagree as to whether it were straight or deeply waved, and still less likely to disagree as to whether it were straight or curly. The same considerations apply to color.

Recognizing then the fact of the continuous variation in these characters, I have described them as if they were discontinuous. For purposes of this paper hair form is classified as straight, low-waved, deep-waved, curly, frizzly, and woolly, and the color is designated as black, dark brown, reddish-brown, light brown, blond, golden, red, and gray. The amount of beard on the upper cheek, lower cheek, and chin and the amount of body hair on the chest, forearm, and leg was described as none, slight, medium, and heavy. Eye color is classified as black, dark brown, and light brown, blue, gray, blue-brown, and gray-brown. The amount of conjunctival pigment is classified roughly in accordance with the appearance of the scelera—white and clear, muddy, speckled, or mottled. The development or lack of development of the epicanthic (Mongoloid) eye fold is described as absent, slight, medium, or marked. The elevation of the nasal bridge has been 128

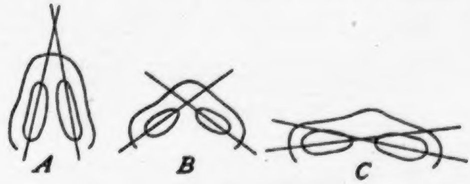

FIGURE 1. Diagram illustrating terminology used to describe the form of the nostrils: *A*, antero-posterior nostrils; *B*, obliquely placed nostrils; *C*, transverse nostrils.

estimated in terms of low, medium, or high. The form and direction of the nostrils are roughly classed, according to the direction of the long axis of each nostril, as antero-posterior, oblique, or transverse. (See figs. 1 and 2.) The slope of the forehead is estimated as vertical, moderate slope, or low. The development of the glabella is indicated by the terms smooth, medium, and prominent. The thickness

128 of the lips is recorded as thin, medium, or thick. Prognathism, which in a living person is a complex and somewhat elusive character, is described as absent, slight, medium, or marked. In the ears the development of the lobes (small or large, attached or separate), the roll of the helix (rolled one-third, two-thirds, three-thirds, or flat), and the presence or absence of Darwin's tubercle were recorded.

Particular care was taken to record the form of the upper incisor teeth with a view to determining the presence or absence of the shovel-shaped incisors. Although primarily described by Hrdlicka[3] as shovel-shaped this condition of the incisor and other teeth has more recently been described by the same author as keilodonty and koilomorphy. As the fossa is dependent on the formation of the rim, it will be sufficiently clear and less cumbersome to discuss this condition in terms of rim development or keilodonty. In this paper classes of no rim, trace of rim, medium rim, and marked rim correspond to Hrdlicka's classes of no shovel, plain trace, semi-shovel, shovel-shaped. The condition is well described by Hrdlicka:[4] "The lingual surface of the well developed shovel-shaped incisor is very striking. The usual moderate concavity from above downward is replaced by a triangular to rounded or oblong deep fossa. The base of the fossa is formed by the free edge of the tooth, its summit reaches upwards near to the gum. The fossa is bounded laterally and generally also distally, hence on all sides by a stout rim of enamel."

DESCRIPTION OF THE TONGANS

The results of the seriation and averages are summarized in Tables I, II,
128 and III. In Table I we find a fairly normal distribution in all anthropometric
141 characters. The number of persons concerned in each character is so small that any departure from the normal cannot be regarded too seriously. Doubling the class interval is usually sufficient to smooth the curve. Even after doing this, however, the distribution of head length and face width present a somewhat skewed distribution. Indications of bimodality are also noticeable in the bigonial diameter, face height, and face index distribution. At present the significance or non-significance of these facts is not clear.

[113]

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[3] Hrdlicka, Ales, Shovel-shaped teeth: Am. Jour. of Phys. Anthr., vol. III, p. 429, 1920.
[4] Op. cit., p. 429.

COMPARISON OF THE TONGANS WITH THE SAMOANS

Researches during the past year provide the necessary data for a comparison 141
of the Tongans and the Samoans, and it is practicable to make the comparison 142
somewhat more detailed than is usual, because both groups were studied by the 128
same men, and differences in method and technique can therefore be largely ignored.

In Table V the standard deviations and coefficients of variation are compared. 141 The Samoan series is somewhat noteworthy for its relative homogeneity when compared with existing groups of man. As a group the Tongans show noticeably more variation than the Samoans. In thirteen of the nineteen characters under discussion the Tongans are more variable than the Samoans—a statement which applies to both sexes. In the six characters in which the Samoans exceed the Tongans in range, the excess is very slight. In most of the characters in which the Tongans are the more variable the excess is appreciably larger. In both groups the variability as expressed by the coefficient of variation is considerably greater in the males than in the females.

In comparing the averages of the two groups for each anthropometric character shown in Table VI and the frequencies of the attribute characters shown in Table VII, the very close correspondence of the Tongans to the Samoans is striking in every character that lends itself to accurate measurement. Most of the differences occurring might well be regarded as chance differences. It must be remembered again that small differences in distribution in the attribute or descriptive characters are not to be taken too seriously.

TABLE V. COMPARISON OF STANDARD DEVIATIONS AND COEFFICIENTS OF VARIATION IN SAMOAN AND TONGAN SERIES

CHARACTER	MALE				FEMALE			
	S. D. ±		V. in per cent		S. D. ±		V. in per cent	
	Samoan	Tongan	Samoan	Tongan	Samoan	Tongan	Samoan	Tongan
1. Stature	5.25	5.21	3.05	3.01	4.92	5.83	3.05	3.58
2. Head length	5.69	6.89	2.98	3.60	5.22	6.47	2.85	3.51
3. Head width	4.46	4.26	2.88	2.75	3.87	5.06	2.61	3.37
4. Minimum frontal	5.98	4.87	5.78	4.64	3.96	4.65	3.90	4.51
5. Face width	5.23	5.94	3.59	4.13	3.79	6.03	2.77	4.43
6. Bigonial	5.13	5.81	4.90	5.54	3.93	4.80	3.96	4.83
7. Face height	6.56	6.81	5.00	5.31	6.41	5.79	5.30	4.66
8. Nose height	3.64	3.91	6.09	6.80	4.53	3.75	8.34	6.61
9. Nose width	2.59	3.02	5.91	6.80	2.56	2.86	6.21	6.82
10. Ear height	4.23	4.57	6.39	6.92	3.33	3.97	5.44	6.15
11. Ear width	2.76	2.62	7.84	7.59	2.30	2.35	6.84	7.03
12. Cephalic index	3.53	3.14	4.34	3.87	2.98	4.09	3.68	5.01
13. Fronto-parietal index	3.30	3.51	4.94	5.19	3.12	3.22	4.54	4.68
14. Cephalo-facial index	2.84	4.68	3.01	5.04	2.63	3.23	2.84	3.54
15. Zygomatico-frontal index	3.55	4.23	5.01	5.78	3.34	3.33	4.49	4.41
16. Zygomatico-mandibular index	3.84	4.56	5.42	6.22	3.50	3.57	4.83	4.92
17. Facial index	4.87	4.43	5.42	4.96	5.03	4.32	5.60	4.75
18. Nasal index	5.86	7.58	7.96	9.76	7.99	6.15	10.47	8.28
19. Ear index	3.79	3.93	7.11	7.50	4.53	3.93	8.25	7.58

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TABLE VI. COMPARISON OF AVERAGES OF ANTHROPOMETRIC CHARACTERS OF TONGANS AND SAMOANS

CHARACTER	MALE				FEMALE		
	1	2	3	4	5	6	7
	A_1	A_2	A_2-A_1	$\sqrt{e_1^2+e_2^2}$	A_3	A_4	A_4-A_3
	Samoan 67–70 Persons	Tongan 92–117 Persons			Samoan 20–23 Persons	Tongan 88–97 Persons	
1. Stature	171.7	173.0	+ 1.3	.83	161.2	162.5	+ 1.3
2. Head length	190.6	191.0	+ 0.4	.93	183.0	184.1	+ 1.1
3. Head width	154.8	154.8	0.0	.67	148.1	150.0	+ 1.9
4. Minimum frontal	103.4	104.8	+ 1.4	.85	101.5	103.0	+ 1.5
5. Face width	145.9	143.5	— 2.4[2]	.84	136.5	136.1	— 0.4
6. Bigonial	104.6	104.8	+ 0.2	.82	99.0	99.2	+ 0.2
7. Face height	131.1	128.2	— 2.9[2]	1.01	121.1	124.1	+ 3.0
8. Nose height	59.8	57.5	— 2.3[1]	.56	54.3	56.7	+ 2.4
9. Nose width	43.8	44.4	+ 0.6	.41	41.2	41.9	+ 0.7
10. Ear height	66.1	66.0	— 0.1	.65	61.2	64.5	+ 3.3
11. Ear width	35.2	34.5	— 0.7	.41	33.6	33.4	— 0.2
12. Cephalic index	81.3	81.1	— 0.2	.51	80.8	81.6	+ 0.8
13. Fronto-parietal index	66.8	67.6	+ 0.8	.51	68.8	68.7	— 0.1
14. Cephalo-facial index	94.2	92.8	— 1.4[2]	.55	92.4	91.2	— 1.2
15. Zygomatico-frontal index	70.9	73.1	+ 2.2[1]	.58	74.5	75.4	+ 0.9
16. Zygomatico-mandibular index	71.7	73.2	+ 1.5	.62	72.5	72.5	0.0
17. Facial index	89.9	89.2	— 0.7	.72	89.8	90.8	+ 1.0
18. Nasal index	73.6	77.6	+ 4.0[1]	.99	76.3	74.2	— 2.1
19. Ear index	53.3	52.4	— 0.9	.58	54.9	51.8	— 3.1

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128 In Table VI the Samoan male averages are given in column 1 and the Tongan male averages in column 2. The differences of the two averages with the Samoans as a standard are given in column 3, superior figure 1 indicating possible significant difference and superior figure 2 an approach to significant difference. These differences are compared with the magnitude of the errors of the averages in column 4. Unless a difference in column 3 is three times as great as the magnitude of the errors in column 4, it is not regarded as significant. Columns 5, 6, and 7 give the same data for the females as are given in columns 1, 2, and 3 for males The differences in the females are less significant on account of the size of the Samoan sample.

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TABLE VII. COMPARISON OF ATTRIBUTE CHARACTERS IN TONGANS AND SAMOANS ON A PERCENTAGE BASIS

CHARACTER	MALE		FEMALE	
	Samoan 67–70 Persons	Tongan 92–118 Persons	Samoan 20–23 Persons.	Tongan 88–97 Persons
Skin color (unexposed part)	Medium brown	Medium brown	Medium brown	Medium brown
Von Luschan's numbers	14, 15, 16	14, 15, 16, 17	13, 14, 15	13, 14, 15, 16

EVIDENCES OF MELANESIAN INTERMIXTURE

Although the differences between Tongans and Samoans are very slight, yet 144
almost without exception they point in the direction of Melanesia. Of the Samoans[*] 141
I said that considering the group as a unit there seems to be very little Melanesian 142
blood in evidence. On the basis of cultural or linguistic affinities it is common to assume a large amount of Melanesian blood in all Polynesian groups. If such blood exists it should be easily demonstrable. Melanesian intermixture should result in a lower stature, longer heads, broader, shorter noses, shorter ears, more curly, frizzly, or woolly hair, more beard and body hair, a smaller transverse fronto-parietal index, a lower, narrower face, greater prognathism, and a heavier development of the glabella and supra-orbital region. A large percentage of the difference between Tongans and Samoans is of a nature that from purely theoretical reasons I suggested might be expected to result from Melanesian mixture. As a matter of fact there are few or no careful and detailed descriptions of those Melanesian groups that are geographically nearest to the Tongans and very meager data from the area as a whole. In order to state with any finality what might be expected from the mixture of Polynesians and Melanesians, in lieu of any absolute data on the question, detailed and accurate descriptions of several living Melanesian groups would at least be necessary.

Assuming, however, that I have stated with approximate accuracy what might be expected in such a mixture, the analysis can be carried a step further. As a test woolly, frizzly, curly, deeply waved, and, to a less extent, low-waved hair, may be taken to indicate Melanesian physical mixture. If it does indicate Melanesian mixture and this mixture has taken place on a large scale within fairly recent times, it is to be expected that persons with wavy and curly hair will show other Melanesian characteristics. By this I do not mean that there is necessarily any high correlation between the combinations in which physical characters are inherited when two races mix but that, purely on the basis of chance, if curly, wavy hair indicates the presence of Melanesian blood, it is reasonable to expect that the curly, wavy-haired group, as a unit, will show a closer approach to the Melanesian average than will the straight-haired group.

Accordingly I have divided my material on the basis of hair form into three 128
groups. The first group includes the straight-haired persons, the second group those with low waved hair, and the third group includes all with deeply-waved, curly, or frizzly hair. I have compared these three groups with the total series. The averages of the three groups do not necessarily equal the averages of the total series since the data for a number of persons who were doubtfully marked "straight to low waves" or "low waves to deep waves" were excluded in making up the

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[*] Op. cit., p. 96.

128 smaller groups. In seriating these doubtful types of hair form in the summary, I alternately placed one of these in the lower class and one in the upper class. In obtaining averages of groups based on hair form, it seemed best to exclude the data marked "doubtful." The averages for the anthropometric characters in these four groups will be found in Table VIII.

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TABLE VIII.—AVERAGES OF ANTHROPOMETRIC CHARACTERS FOR TONGANS WITH DIFFERENT TYPES OF HAIR FORM

MEN

Character	Total group	Straight hair	Low-waved hair	Deep-waved to woolly hair
1. Stature	173.0	171.0	173.9	173.2
2. Head length	191.0	189.3	193.2	192.2
3. Head width	154.8	154.3	155.2	156.9
4. Minimum frontal	104.8	102.4	106.1	103.3
5. Face width	143.5	144.7	145.2	143.9
7. Face height	128.2	129.7	129.0	128.3
8. Nose height	57.5	58.9	57.8	57.0
9. Nose width	44.4	44.3	44.8	45.6
12. Cephalic index	81.1	81.3	80.3	81.8
13. Fronto-parietal index	67.6	66.3	68.3	66.0
14. Cephalo-facial index	92.8	93.7	93.7	91.9
17. Facial index	89.2	89.8	88.9	89.3
18. Nasal index	77.6	75.5	77.7	80.4

WOMEN

Character	Total group	Straight hair	Low-waved hair	Deep-waved to woolly hair
1. Stature	162.5	161.3	163.1	162.3
5. Face width	136.1	137.0	137.2	136.4
7. Face height	124.1	124.0	124.5	123.3
8. Nose height	56.7	57.3	56.8	56.1
9. Nose width	41.9	42.1	41.9	41.8
12. Cephalic index	81.6	81.0	82.2	81.2
13. Fronto-parietal index	68.7	69.1	67.9	69.3
14. Cephalo-facial index	91.2	91.5	91.0	90.9
18. Nasal index	74.2	73.6	74.2	74.7

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142
144
There are no consistent differences between the straight-haired and the low-waved groups. But in the groups containing the persons with deeply waved, curly, frizzly, and woolly hair we notice that the averages again point in the direction of Melanesia. The faces are lower and narrower, the noses are lower and wider, the average cephalo-facial index is lower and the nasal index is higher.

144 Emphasizing, then, more the nature than the magnitude of the difference, I am inclined to believe that in those traits in which the Tongans differ from the Samoans the differences may probably be attributed to Melanesian intermixture.

11: Sullivan D-4 (no date) 1922 OU9 Tonga OU9

DISCUSSION AND CONCLUSIONS

Comparison of the Tongans with the Samoans has thus shown remarkably 141
close resemblance between these two groups in almost every detail. The few small 142
differences might well be considered as accidental or as reflecting slight local 144
differences, were it not for the fact that they point in the main in one direction. From the general direction of these differences it seems most reasonable to assume that they are the result of Melanesian intermixture.

In another publication[1] I stated that I saw no reason for assuming any appreciable amount of Melanesian blood in Samoa. Perhaps this statement should be qualified to make its meaning clearer. The census returns show that there are 162
in Samoa and Tonga a considerable number of natives of Fiji and other Melanesian 144
islands. In both of these island groups there are persons of known and admittedly mixed Melanesian-Polynesian parentage. These facts are known and require no anthropological research to establish them. In view of these facts it is desirable to determine to what extent the population styling itself as of pure Samoan or of pure Tongan origin has been in the past affected by Melanesian intermixture.

This problem can be solved only by determining the degrees of differences 128
and likenesses in the groups concerned. The results, however, can be expressed
only in general terms, for there are no known factors in the equation. From the 000
marked general differences in physical type between Samoans and Melanesians I conclude that the amount of Melanesian blood in Samoa is very small. This may be due to the fact that intermixture never took place on a very large scale in Samoa, or that if it did take place on a large scale it was so long ago that the Melanesian element is almost completely absorbed by the general Samoan population.

In Tonga conditions are somewhat different. Enough Melanesian blood is 144
in evidence to alter noticeably the average physical type. But such correlation exists between the various Melanesian traits in individuals and groups that when individuals are classed on the basis of one Melanesian trait the averages in many other traits also reflect the Melanesian intermixture more clearly than do the Tongans as a whole.

From this it may be assumed that the Melanesian element in Tonga is either 144
comparatively recent or considerable in amount. The chances are in favor of recent 162
rather than great intermixture, but since skeletal material of known chronological sequence is lacking, no definite conclusion is possible. It may be said, however, that without much doubt there is considerably more Melanesian blood in the general Tongan population than there is in the general Samoan population.

In their broader racial affinities the Samoans and Tongans are very similar, 144
and therefore what I have said of the Samoans holds for the Tongans. Never-

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[1] Op. cit.

121 much fullness as our field notes make possible. Only by empirical field studies will the student be able to gather the data without which hypotheses are mere speculation and speculation itself takes the place of a rigorous scientific thinking.

122 We are indebted to various friends for helping us with our work: to the Prince Consort Tungi for giving us permission to live in a Tongan village and introducing us to government officials in Neiafu; to John Feiloakitau, Police Magistrate in Neiafu, for advice and assistance; to Dr. and Mrs. John Lopdell who took us as strangers into their home in Neiafu and gave us the privilege of their friendship and hospitality; to our friends and informants in Pangai village who welcomed us and helped us and let us
128 live among them. Special thanks are due to Biukala of Pangai for preparing for us the first draft of the two sketch maps of Pangai village and of the island of Pangaimotu. Miss Lovella Proctor prepared these maps for publication; we are grateful to her for this help.

The material embodied in these notes is the result of co-operative work. The monograph was written by Ernest Beaglehole.

133 The island of Pangai has a greatest height of 290 feet
(131) and a total area of 2,188 acres. All the island makes up one
(423) of the royal estates. There are two villages, Pangai and
(643) Utulei. In 1931 their populations were given as 250 and 104
361 respectively.[4] The division of acreage between the two
(162) villages is roughly indicated on the island map (Fig. 1).[A]

(423) Because the principal economic activity of the villagers
128 is gardening and cultivation of root crops mainly, a note
(241) may be added on soil and climate. The following information[5] refers specifically to 'Uta Vava'u but there is no reason
to think that it does not apply equally well to the island of
134 Pangai. The islands are of a coral-formation on a volcanic
base. The soil is rich and fertile. The climate is sub-
132 tropical with a humidity in mid-summer that is severe and
which has a year-round mean in Neiafu of 77 per cent. The
rainfall is fairly heavy with a wet season from December to
April and an occasional short but injurious drought between
October and December. (Rainfall range in Neiafu, 68 to
103 inches, mean of 82 inches.) The soil of the island is
312 very porous and water may be obtained easily by sinking
a well. Today however, the villagers rely on concrete
cisterns to obtain water for drinking and domestic purposes.
The number and location of these cisterns in Pangai village
is shown on the map (Fig. 2).[B] The prevailing winds are
132 the south-east trade-winds. During the rainy season,
hurricanes are an ever-constant threat to the villagers. Only
731 occasionally do these hurricanes occur with disastrous effect.
Every year however, the possibility of hurricane means an
ever-recurrent anxiety. A hurricane does great damage to
the gardens and cultivations and generally means food-shortage for many months thereafter. Even strong winds
of less than hurricane force may cause great damage if they

[TEXT CONTINUED ON PAGE 10]

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(104) Tongan orthography. No confusion need arise: it should be obvious that the village of Pagai on the map is the same village referred to as Pangai in the text. It is hard to answer the very natural question as to why we use these two orthographies thus, instead of one only. Presumably we think the Polynesian system more correct than the Tongan system although we would feel guilty if we tampered with the standardized spelling of place-names on a map.

[4] According to our household census, the population of Pangai in December, 1938, was 268 (see p. 69).

(113) [5] From Wood, A. H., *History and Geography of Tonga*, Auckland, 1938, pp. 85-86.

A. [See category 116, p. 6--Analyst]
B. [See category 116, p. 9--Analyst]

512 The routine as given is for days during the month of
January. It is not to be supposed however, that this routine
varies greatly for different times of the year. There are no
[132] marked seasonal changes in the Tongan climate except the
change from a dry to a wet season. This change does not
[241] affect the growth of plants to any degree. Hence the villager
is cultivating for most of the year, and when he is not
512 cultivating, he is planting. Annual festivities such as
Christmas and New Year celebrations, missionary-confer-
527 ences and the like mean a certain crescendo of economic
activity because feasting and resting and then more feasting
are approved Tongan methods of celebration. This kind of
holiday-making can only be prepared for by extensive and
increased pre-holiday working activity. Otherwise, as has
been stressed, the daily routine is, by and large, the yearly
routine.

512 So far we have been considering the daily routine of the
villager in terms of the classified statements of a table. In
128 order to give some indication of what this daily routine
means in the life of the villager, the following notes are
taken from field-notebooks. They serve to show the contrasts
between day by day work on the one hand and the activities
centred round special celebrations on the other.

512 This is the way life runs in the village today: Bovai is
holding a working-party to clear the weeds from his pine-
461 apple plantation. Many men are busy there today—his
476 friends from the Catholic church and his male relatives.
They finish work in the early afternoon and then come back
[574] to Bovai's house where he has ready for them a large oven-
baked feast. Bovai finds this a good way to get large
amounts of work done. The men enjoy this kind of work
for a change. It is much more sociable, friendly, and
satisfying than sweating away alone in the bush with only
the persistent mosquitoes for company.

512 Hausia is taking no part in this working party. He is
working with the men of his own household on his own
461 plantation. The men take time off during the day to make
592 for themselves an elaborate feast in the bush. One of the
boys comes back to the village bringing with him a few baked
[574] *taro*-corms and some pieces of baked *manioke*. This snack
[262] is for Hausia's wife and the girls of the household who are

KINSHIP

602 The structure and functioning of the Tongan kinship
128 system has already been competently described by Gifford
(*Tongan Society*, pp. 21-29). Just because, however, the functioning of the economic and social systems of village life is shot through and through with rights and duties based upon kinship relationships, it is desirable that some brief account should be given of the way certain kinship relations affect the everyday life of this commoner village. It should be noted that no attempt is made to present here the theoretical kinship structure. Our interest is in what use is made today of the more significant parts of this structure. Further material in this connection will be found in other relevant sections of this report, particularly in the descriptions of the life cycle (pp. 78-106).

BROTHERS AND SISTERS

593 There is strong brother-sister avoidance in the village.
602 In Tongan thought, this is conceived of as "showing respect"
(fakaapaapa) for the sibling of the opposite sex. The
[601] respect is extended to include all those classificatory kin
to whom the terms brother and sister may be applied, for
example, cross-cousins. This respect is shown by the following observances: those who are considered brother and sister may not quarrel or gossip with or about each other; they may not sleep in the same house, drink of the same coconut, eat of the same portion of food; they may not wear each other's clothes, although the sister may handle
178 and wash her brother's clothes. Formerly, they might not
sit or talk together, only opposite and at some distance from
593 each other. Formerly the sister avoided altogether her
602 brother's house; today she may go to his house for food or
come to the house when the brother is sick, provided she sits at a safe distance from the sick man. It is permissible today for the sister to show affection for her brother by "kissing" him when he is going off on a long journey or returning from one, as in the case of the sister who excitedly ran to "kiss" her brother, and as quickly withdrew, when he returned, after a dangerous journey by cutter, from school
593 602 in Tongatapu. These attitudes begin at about the time when

585 [128] This may be best emphasized by outlining the formal marriage ceremony and then giving a short case-study to show the limit of variations on the pattern.

585 583 431 In any formal marriage, much preparation is concerned with the collection of the necessary gifts, transfer of which in the old days constituted the validation of the marriage relationship and which today are still necessary if the marriage is performed according to rule. These gifts are collected together by the father of the groom. They consist of a ceremonial skirt *(vala to'onga)*, six or more specially-made sleeping mats, quantities of bark cloth and clothing. The mats have taken years to make. They have been specially made for some future marriage and have been carefully stored away until needed. Relatives may be asked to contribute further fine mats, in which case they are later repaid with return-gifts of mats. The gifts are all brought together in the house of the groom's father and the bride and her relatives are invited to inspect the display. The groom's father must also bring together great quantities of food, pigs, and *kava*. This preliminary collection may well take a week or more to complete.

585 When all is ready, the groom's sisters escort the bride
to the groom's father's house. There the groom's mother
[292] dresses the bride in a *vala* which consists of a four-fathom
length of bark cloth. The bride returns to her own house,
bathes and dries her body with the bark cloth *vala*. She
again returns to the groom's father's house where the father
has prepared a small feast. She is accompanied this time by
her mother and her mother's sisters. All eat. Then the
bride and groom together with a party of relatives go to
Neiafu to secure the civil marriage-license. They return to
[793] Pangai, eat more food, and proceed to the church where
the religious ceremony is performed by the pastor. The
[435] marriage license costs eight shillings, the marriage ceremony
whatever the groom can afford to give the pastor—ten
shillings would be a more than adequate gift from the
ordinary family. After this the groom goes to his father's
[292] house, the bride to her father's house where she dresses in
the ceremonial *vala* provided by the groom's father.

All meet again at the groom's father's house where the gifts of mats and bark cloth have been piled high outside

648 suggestion did not occur—namely, that the "Honourable and Reverend" Shirley Waldemar Baker, First Minister of the king and the State Church, had fallen from his high estate, and had been removed from the little kingdom where he had so long ruled the natives for their good and his own profit.

The tongue of rumour was hushed at last. Suva awoke one morning to find the Red Cross fluttering from the signal-staff, and her Majesty's ship, ironically christened
[797] the Rapid, creeping slowly along the reef. Almost before
the yellow flag had been hauled down the news flashed along the beach that Baker had indeed fallen, and could not again set foot in Tonga for two years on pain of imprisonment.

128 A sketch of the events of the last few years cannot be avoided, but it shall be a sketch in outline only.

When George Tubou became king in 1845 his people
797 were in the white-heat of a conversion to Christianity.
[212] The missionaries had taught them to read and write, and
[671] to pass a simple code of law. They had imbued them with
797 envy of the dignity of civilised States,—their law courts,
177 their police, the uniforms and salaries of their officials,
178 and their other blessings of civilisation—including taxes.
All these the Tongans might have if they were shown how to begin. For years there was no one to direct their nascent aspirations. Their teachers had no enterprise, and devoted themselves to the spiritual rather than the temporal needs of their flock; but at last with the necessity came the man. Mr Baker was a genius in his way. None knew better than he how to work upon the feelings of his congregation, or could better gauge the exact

sistent misrepresentation of me as a champion of the 793 798
Wesleyans had contributed to the popular suspicion. The 645
manners of the average Tongan to a white man whom he 609
dislikes and does not fear leave much to be desired. I 576
found myself jostled off the road by men on horseback,
and subjected to many other petty annoyances. All this 645
had to be borne good-temperedly if my mission was to 609
be successful; and I knew that in a few months I could
succeed in changing the hostility and suspicion into
friendliness.

My first task was to inspire the chiefs with confidence: 645
the people would follow their lead all in good time. As 622
soon, therefore, as we were installed in our new house, I
invited Fatafehi, the king's grandson, to visit me. This 644
chief enjoys a far higher degree of rank than his relation- 622
ship to the sovereign would confer upon him, for he is a 554
chief of the spiritual line; and now that the office of Tui 643
Tonga has been abolished, and Christianity has removed
the superstition by which the descendant of the Immortals was surrounded, he enjoys the highest consideration
in the kingdom after the king. To him alone, besides the [195]
king, is used the peculiar language of respect by which
the deity is addressed. Of the curious polity of Tonga [128]
before the introduction of Christianity I shall speak hereafter.

Although hedged by divinity, Fatafehi bears his honours 644
with great ease and good-humour. He has a jolly round 622
face, fringed with grizzled whiskers and moustache; and
his kindly expression and burly figure give him the appearance of a gentleman farmer when times were good. He
is, moreover, almost the only Tongan who, in dress clothes,

14: Thomson G-3 (1886-1891) 1894
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[1876]

175 that these nefarious designs could be frustrated. He now
797 began to play into the hands of Germany, thinking that
643 he would flatter the king by negotiating a treaty with one
175 of the Great Powers. He approached the German Consul-
797 General in Samoa, and found him ready to treat with him
648 for a fair price—namely, the cession of a coaling-station in the unequalled harbour of Vavau. On the 1st of November 1876 the native plenipotentiaries, with their reverend interpreter, proceeded to a German ship-of-war to sign the treaty that had been prepared for them. It was read, and when the passage about the coaling-station was reached Tungi objected that he would like to consult the king before signing such a clause, but the German commander sternly told him that it was all settled, and that it was too late to withdraw. So the treaty was signed, and the coaling-station ceded "without prejudice to the rights of sovereignty of the King of Tonga," and the "interpreter" received a decoration from the Emperor of Germany for the trouble he had taken in the matter.

I have now brought this sketch to the point of the
128 establishment of the Free Church, whence I have traced it in the opening chapters of this volume. For those who have heard of King George only as a persecutor, or as a sovereign ruled by his own Minister, owe it to themselves and to his memory to give at least an equal prominence in their minds to the story of his early career.

644 father, chuckled at the thought of being a
grandfather, and touched lightly on the still
burning question of the king's marriage, which
had not disturbed him, for all it had threatened
797 revolution. And "Misa Beika" was back again.
He laughed long and loud at this admission and
the reminiscences that it evoked.

128 I must here digress to explain what had taken
place since my term of office ten years before.
643 In 1893 King George had died, at the age of
[764] ninety-seven, of a chill supposed to have been
brought on by his obstinate habit of bathing
at daybreak in the sea, and had been buried in
a huge mound thrown up in the public square
of Nukualofa, known as the Malaekula, or Red
Square. Contrary to expectation, his great
great-grandson, Taufa'ahau, had succeeded him
without disturbance, under the title of George
645 Tubou II. Not long after his accession he had
dismissed Tukuaho, appointing him governor
of Vavau, and had made Sateki, my auditor-
[647] general, premier in his stead. For a time the
[186] premier had had an European clerk, but the
native government had gradually come to dispense
with all Europeans except the Customs staff.
652 This meant, of course, that it had sought un-
official and irresponsible advice from traders,

16: Collocott M-5 (no date) 1921 OU9 Tonga OU9

174 of later date. The Maui stories may indicate a later wave of
immigration. If the Vavau of myth could be identified, at least as far
as the Tongan islands are concerned, with the present Vavau in the
north of the group, it may be the stopping-place of a wave of
Polynesian settlers who found the southern parts of the group already
occupied by earlier Polynesian immigrants, or by non-Polynesian
174 people. It is evident that free communication with Fiji is of old date.
Various relationships with Fiji are manifest. The language shows
177 layers or words which have come by way of Fiji, of which some have
174 undergone the orthodox morphological modification, and some have
[197] not. Possibly the whole question will never be capable of other than
conjectural solution. In concluding this very important note on
115 Tongan religion I desire to express my obligations to Tangi, the Tui
Haa-takalaua and Consort of Queen of Tonga, to Tuivakano, the
Premier, to the chiefs Ata, Ahomee, and Tamale, to the Revs. J.
Havea, J. Taufa, H. Talia, and E. Tubou, all of the Methodist Mission,
to Buleti, Havili, Fatai and many others who have gladly given
such information as they were able about matters of which the
127 recollection is fast fading. I have constantly used also the valuable,
but all too small, collection of material in the late Dr. Moulton's
Magazine, of which a large part was written by the late David Tonga.
128 I desire also to express my obligations to the Rev. R. O. G. Pape,
Chairman of the Methodist Mission, and to Mr. E. W. Gifford, of the
University of California, who visited Tonga under the auspices of the
Bishop Museum, Honolulu, from August 1920, to May, 1921.

643 that in any case the decay of the Tui Tonga kingship would have proceeded till a forceful personality established a new
797 dynasty. Had there not been the controlling contact with the great outside nations, and had the life of the man, to whom it fell to make the change, not been sufficiently long to consolidate firmly his power, the struggle would doubtless have been longer and bloodier. Had Christianity not put into Taufaahau's hands a powerful new weapon, he would still, perhaps, have tried to seize for himself some sovereignty independent of the Tui Tonga. A significant incident is related of him. Before his conversion to Christianity he carried off for himself the chief bride of the Tui Tonga, her, who should be the mother of the next Tui Tonga. This seems an emphatic declaration that he, Taufaahau, was to be the father of kings and source of sovereignty.

In the event the consolidation of the kingdom under
642 Taufaahau has been of inestimable service to Tonga. In
177 the momentous period when the island folk were falling to the lot of this or the other great nation, Tonga, saved from
178 the internecine strife of chiefs of equal power and claims, has moulded a constitution able to withstand the disintegrating shock of the outside world, and, alone of the Pacific groups, lives to-day happy and contended with its native kingship, in a partnership with Great Britain, which is equally honourable to the adaptability and sagacity of the little island kingdom, as to the good faith of the great protector.

Although I have left many obligations unrecorded, I
128 wish to express my indebtedness to Her Majesty the Queen of Tonga, and Mr. E. W. Gifford, to whose joint kindness I owe a copy of the Royal Genealogy.

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000 civilisation issuing in the results specified, is the object of the following pages. A change so stupendous, and rapid, as the one here indicated, may well claim the candid consideration of thoughtful minds, and is worthy of an abler pen than that which here attempts its delineation. The history is by no means exhausted in these pages; nor has the writer been able to dwell, at any length, upon those lessons that may be learnt, from the various aspects of religious and social progress, among the Tonguese. Of one thing, however, every careful reader will be fully convinced, in regard to the best mode of conducting Missions among the Heathen. The immediate and large employment of a well-trained native agency, in the Friendly and other Islands of Polynesia, has received the signal sanction and blessing of God. The experiences of the Protestant Churches throughout the insular system of the Pacific Ocean, from New Zealand to the Sandwich Islands, concur in declaring that the development and culture of this instrumentality ought, more than ever, to command the attention of Missionary Societies, in all the great centres of foreign operations.

128 The material for this work was in hand, and was intended for publication, several years ago; but other pressing duties necessitated its being laid
797 aside until now. After the return of the author to England, three years were spent, in the compilation and translation of various works, published for the benefit of the Tonguese, by the Wesleyan Mis-

sionary Society; while three years more were devoted, under the direction of the British and Foreign Bible Society, to the completion of a translation of the entire Bible into the native tongue, in the original preparation of which several honoured Missionaries had largely shared. 797

These engagements must be the writer's apology for offering to the public the "Reminiscences" of a Missionary career completed several years ago. 128

As nothing has been here written from any other motive than that of conveying useful information, and with the sincere desire to promote a warmer and more self-sacrificing Missionary spirit among Christian people, the volume is commended to the kindly consideration of the reader, and, above all, to the blessing of the Most High, the effects of whose saving power it narrates, and whose glory the author humbly seeks to magnify. 121

Keighley, Yorkshire,
July, 1865.

[p. x is blank]

timber is obtained. The *tea*, or iron-wood tree, 313
(*Casuarina equisetifolia*,) is somewhat abundant, [137]
but it is not much used by the natives, because
of its excessive hardness and heaviness. Clubs [411)
and spears were made from it in former times.
The large posts required for buildings are obtained [342)
from the *koka*, whose timber is very durable in
the ground. It likewise affords the best firewood;
and a dark liquid which exudes from its trunk, [314]
when the bark has been scraped off, is employed in [386)
stamping patterns upon the native cloth.

Some of the most stately and magnificent trees
are only fit for firewood, and some not even for
that. Among these may be reckoned the *orava*, [137)
a species of banyan; the *buko*, (belonging to the
natural order of *Bombaceæ*,) and the *gatae*,
(*Erythrina corallodendron*.) This latter tree is [245]
very commonly planted to distinguish the bound- [423)
aries of land belonging to different proprietors.

Having considered, so far, the natural produc- 128
tions of the islands, as a whole, we shall now resume 114
our personal narrative, by taking the reader to
Vavau, where the first years of our residence were
spent.

000 would be made, in the case of the Friendly Islands, with a people possessing an established and constitutional government. Small as is the dominion [648] of King George, the Tonguese nationality has been recognised by England, France, and America. There would, therefore, be every guarantee obtained, that any stipulations entered into would be faithfully carried into effect.

177 These are some of the advantages which Vavau holds out; and it is somewhat remarkable that the very first steam-ship that ever made the voyage from Panama to Sydney, did call at Tongatabu, where provisions and firewood were abundantly supplied. To the Americans the honour is due of having actually accomplished that, about which the English have, as yet, only talked. As might have been expected, however, the speculation proved a failure, and the unfortunate steamer, "Monumental City," was subsequently wrecked on the Australian coast. The visit of this steamer to Tongatabu created a great sensation. It was the first time that the natives had seen what they call, very poetically, the fiery-sail ship (*koe vaka la-afi*). Their amazement was extreme upon first seeing the smoke of the steamer, and then its rapid and graceful motion unaided by any sails. It was visited by great numbers during its stay; and when getting under weigh to depart, the Captain kindly admitted a few of the leading chiefs on board, who, upon seeing the machinery in motion, could not repress their exclamations of astonishment and gratification; although the Tonguese, like the people of many other uncivilized lands, are very slow to betray, by look or word, the emotions of their minds.

128 So much then as to the natural advantages, and

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—may we add?—the probable future of the Vavau harbour. And having dwelt in great measure, thus far, upon the physical characteristics and beauties of these islands, let us now invite the reader to consider some of the wonders of Divine grace, exhibited in the moral regeneration of a fine, but once truly barbarous race of people; and in their consequent elevation, and rapid progress, in all the blessings of Christian civilization. 128

We have intimated in former pages, that we arrived at Vavau during the progress of a remarkable religious awakening, with which we were made acquainted by the arrival of King George and his fleet of canoes at Tongatabu. It will be necessary, however, to retrace briefly the history of Christian effort and success in Vavau, from its commencement, so that the true condition of the people, at the time of our arrival, may be fully and clearly understood. 799 (128)

There is no study more interesting or instructive, in relation to the spread of Christianity, than that of observing the incidents that attend the dawn of truth upon dark and untutored minds. The instruments employed by Providence, in first rousing a spirit of inquiry, are often, in human estimation, the most unlikely to effect the purpose; and like the break of day, it is impossible to say precisely, where or when the total darkness is invaded by the earliest gleam of light. The past history of the church, in all lands, has shown that the human mind is often prepared, by events apparently trivial, for the greatest of moral and religious revolutions. And thus has the confession of one of the apostolic Christian Missionaries been practically reiterated

superstitious practices, at native burials, we could 797
not be of a different opinion from the teacher himself; 177
but, at the same time, we could not do otherwise than admire, in this particular example, the high value placed by the dying woman upon her greatest earthly treasure.

We must conclude these brief records of the 797
principal events, which transpired during our 128
residence in Vavau, by describing the incidents attendant upon a Missionary voyage, undertaken, from thence, to the islands of Niua Tobutabu, Niua Foöu, and Uvea, or Wallis's Island. But we must first prepare the way by sketching rapidly the rise and progress of Christianity in those places, up to the time of our visit.

In the details about to be given, we crave the reader's special attention to the interesting and most important fact, that, as was the case in the spread of the Gospel from group to group of the Friendly Islands proper, so also in these more remote and solitary islands, it was spread from one to the other through the immediate efforts of natives themselves. Under their instructions, 797
also, the cause of God was so prospered, in the two Niuas, that in a very brief period heathenism was exterminated, and flourishing churches of simple and devoted Christians filled the land. With the exception of a very few months, during which the Rev. Peter Turner resided on Niua Tobutabu, waiting for a vessel to convey him to Samoa, to commence the Mission there in 1835, no European Missionary has ever resided on any of these islands.

NIUA TOBUTABU.—So early as the year 1829, the

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During their continued residence in Vavau, great 167
numbers of the Uveans died. They seemed very susceptible to the influence of any contagious disease. Probably the great hardships many of them had endured, together with the depressing thought that they were strangers in a strange land, predisposed them to sickness, and made them more easily sink under it when seized. No doubt the remnant of the people will ultimately return to their own land; and we may hope that the mission of Protestantism has not yet been finally disposed of.
Since the event we have narrated took place, Uvea 000
has been made the head-quarters of a Romish Polynesian Bishopric, and from thence its emissaries have been sent forth, to various parts of the Pacific, in the wake of Protestant pioneers. Let us trust that this shall only be for a time, and that the light and comfort of a purer faith will yet bless the poor deluded Uveans.*

With these reminiscences we must now take 128
farewell of Vavau and its adjacent northerly islands: 797
and, before carrying our readers to the island of Tongatabu in the south, where the next four years of our life were spent amongst a mixed population of Christians and heathens, we must briefly allude to the mythology and customs of the latter, so that our readers may be better able to form an estimate of what had already been accomplished by the Gospel, in the course of twenty-two years, and to appreciate to the full extent the still greater, because complete, triumph shortly to be witnessed.

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* Since the above was written, a proposal has been made to resume the Uvean Mission, by the Wesleyan Conference of Australasia; but whether this is owing to the return of the expatriated chiefs and people, the writer is not aware.

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The deliberative assemblies of the chiefs were very stately affairs. Each sat in a circle, arranged according to the rank and precedence of those who composed it, where speeches were made by the authorized orators, and by some of the leading chiefs; after which, the ceremony of kava-drinking would be proceeded with. These meetings would often extend over several hours; and every part of the proceedings was governed and conducted according to well-known and rigid laws of etiquette. From these assemblies the knowledge of new enactments, or the arrangements adopted for any projects entertained by the chiefs, was circulated among the people at large by the *Matabules*. 565 623 [554] [276] [576]

We now pass on to a brief consideration of the knowledge of the Tonguese, as developed in their arts, manufactures, and customs. In estimating these, however, the fact must not be overlooked, that as their land yielded no metals, and but few minerals, the resources of the islands, for the production of manufactures, were extremely limited. Indeed, it may be asserted that they carried civilization, in this point, to the full extent of their feeble means. The credit must be awarded them, of displaying no small amount of ingenuity and skill in what they produced. 128 135 181

The warlike weapons of the Tonguese were few and simple. They consisted of spears, javelins, and clubs, made from various kinds of hard and heavy wood, capable of taking a high polish. In their hands, these were most effective weapons. They were also very clever in the use of bows and arrows, and slings. Defensive armour was seldom employed; and great ingenuity was displayed in painting and decorating the person, in preparation for an expected contest. 411 [714]

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CHAPTER XII.

Conversion of Tugi—Attempts at his perversion—Resistance at Bea and Houma—Singular conversion of Hafoka—Strange sight at Neiafu Chapel—Armed interference from Houma—Christian settlement at Fatai—Death of Vaca—Political difficulties—Journal—Interview with Romish priest—War rumours—Visit to Houma and Bea—Declaration of war—Meeting of the Missionaries—Death of Mr. Webb—Narrow escape—Murder of a Female—Progress of the war—Proffer of mediation—Siege of Bea—Capitulation of Houma—Favourable results—A memorable service—The capture of Bea—Close of the war—Arrival of a French ship of war—Formal investigation—Acquittal of the Christian party—Peace and progress—A wreck at Hihifo—Californian gold-diggers—A boat trip to Haabai—Strange histories—Removal to the Haabai Islands. 000

As the design of these pages is not so much to dwell upon ordinary instances of individual conversion, as it is to present a broad view of the occurrences which affected the general condition of the Tonguese people, and by which heathenism was finally and everywhere destroyed in the country; we shall restrict our details of facts to such only as were peculiar in their character, and important in their bearing upon the public mind. 128

One who was thoroughly conversant with the state of the island in 1850, wrote officially from Vavau, in the following terms:—"A mighty move is going on. A better day seems to have dawned upon Tongatabu. Many have been the prayers which have been offered for that island, that Christianity might there become mighty to the supplanting of heathenism and the counteraction of the errors of Popery. Many who have desired to see these days, have died without the sight; and some 797

to unload the canoe at midnight, and stealthily to 797
effect a landing. A watch, however, was kept, and 648
just as the goods and bedding of the Frenchman 643
were coming on shore, the king himself interrupted [651]
the proceeding, and ordered both the offenders [276]
to appear before him in the morning. When they did so, the king forbad the residence of the Frenchman in Nukualofa; and he also told Sovea that, if he ever resided in the town, he should not be allowed to erect a Popish chapel. After this, the canoe sailed to Bea; from whence Sovea and the French lay-brother effected an entrance into Houma, where Vaca gave them a location.

We have now brought these general statements 128
to a point from which we may carry on the narrative, by transcribing a few extracts from our Missionary Journal. These will afford a sufficiently clear insight to the progress of events:—

Hihifo, Sunday, January 11th, 1852.—The re- 797
turn of my natal day. All glory be to God, who has preserved me hitherto from many dangers, in these "ends of the earth." I rode to Nukunuku, [763]
and reached the teacher's house just as the cold hand of death was laid upon one of his children. Barnabas had, only recently, lost his wife, who died happy in the Lord; and, as the decease of this child was quite unexpected, it was a time of deep feeling and solemnity. After preaching there, I rode to Teekiu, where I preached again, and met the Society. I then rode home to Hihifo, in time to preach there also in the afternoon.

Monday, 12th.—Rode to Nukunuku, accompanied by Mr. Webb, where we interred the teacher's child. We then visited Fatai. Mr. Webb

797 [643] whom they selected as sufficiently enlightened, even at that early period, to become the elementary instructor of Taufa-ahau himself. Let us now hear Peter's own account of his mission to Haabai, up to that time when Mr. Thomas, the first English Missionary, landed there. We give the following [128] as a free translation of what Peter Vi wrote for us with his own hand, in Tonguese, only introducing, in brackets, what may be necessary to elucidate the meaning of the text where obscure to an English reader.

PETER VI'S NARRATIVE.

539 797 "This is written by me, Peter Vi, as a record of my conversion to Christianity. Nukualofa was the place where I first began to pray. At that time Josiah Tubou, Tuikanokubolu, was king, and the Missionaries were Mr. Turner, and Mr. Cross. Mr. Turner, (Nathaniel Turner,) was the Missionary whom the Lord employed for my conversion. I was his instructor in the Tonguese language, and assisted him to translate. The first portion of a book which he translated, and from which he preached, was the Gospel of Matthew. When I heard the preaching about Jesus, it instantly pierced my mind, and a love for Him sprang up within my soul, such as led me to meet in a class with six others who thought and felt the same. After a little time we were all baptized. During the sermon, Mr. Turner told us about a certain Missionary who had been preaching to some black heathen people, among whom there was one man in great distress of mind. In the course of his sermon, the Missionary had said that 'his hearers

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and Matthew Wilson, deserve the most honourable 797 mention. During periods of varying length, each of these devoted men laboured successfully among the Haabai islands, and many will be the crown of their rejoicing in the great day of the Lord.

At the time of our appointment thither, death, and successive removals of valuable men through failure of health and other causes, had greatly lessened the Missionary staff; so that the entire charge of these scattered islands devolved upon myself, aided by two native assistant Missionaries, one of whom, David Kata, was stationed at Haano, and the other, Peter Vi, at Tugua. The one was the oldest and first native minister, the other the youngest; and better assistants and colleagues no Missionary could have desired. The character of [128] the work in Haabai, and the efficiency of these native colleagues, will be best understood by extracting from our personal journal the record of those events which will carry the reader to the close of our Tonguese experiences, and will likewise complete the general history of the people up to that time.

Sabbath, June 19th, 1853.—I spent this day at Haano. I left Lifuka yesterday afternoon, at three P.M., and with a favourable breeze reached Haano a little after six P.M. The people generally, and my old Vavau friend, David Kata, gave me a hearty welcome. The services to-day were of the most cheering kind. There were overflowing congregations, and a heavenly influence in our midst. I was occupied throughout the interval of public worship in the examination of eight classes of church members. At four P.M. preached to a large congrega-

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121 THIS small list of Tongan words is intended to supplement
the well known dictionary of Dr. Shirley Baker,
128 which is founded on that of the Rev. S. Rabone. This is
referred to in this list as Baker. The French and Tongan
Dictionary of the Marist Mission is referred to as Dictionnaire
128 Toga-Français. No attempt has been made to include
127 here all words which occur in the latter dictionary but not
in Baker, though some few words which have been
encountered casually in other places, but which are included
in the Marists' publication, are inserted here, sometimes
128 with meanings taken from their book. A few words which
occur in Baker have also been included when it has seemed
121 possible to add something to his explanation. It is not to be
114 presumed that this supplementary list taken in conjunction
with the two dictionaries referred to form an adequate Tongan
121 dictionary. This is merely an attempt to contribute
127 my very small quota to the task of the future dictionary-maker
by putting in permanent and easily accessible form
words which I have from time to time encountered in conversation,
and in the reading of Tongan poems and tales,
some of them in manuscript and some printed, mainly in
Koe Makasini, the Tongan magazine founded, and long
127 edited, by the late Rev. Dr. Moulton. Much of the manuscript
material to which I have had access was collected by
him.

127 Although some words are included from easily accessible
128 printed sources, for example, Mr. E. W. Gifford's *Tongan Myths and Tales* (Bishop Museum Press, Honolulu, 1924),
and a very few from the masterpiece of Tongan composition,
Dr. Moulton's Translation of the Bible, no effort has been
made to include all words from sources which are in no
danger of disappearing or being overlooked. The few words
from the Bible are such as have casually come under my
notice. If the highly desirable task of compiling a satisfactory
and adequate dictionary of the Tongan language be
ever undertaken there is little likelihood of words printed in
the Bible, or in Hymn Books, being missed.

128 Too frequently I have had to admit my ignorance of the
meaning of a word. This illustrates one of the disadvantages
of compiling, or completing, such a list at a distance from
the country where the language is spoken. Where I have
marked a word as of uncertain meaning it is not to be presumed
that the word is rare. "Meaning uncertain" is

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128 merely a confession of my own ignorance. This list is not the fruit of systematic collection of words. It has been compiled more or less casually, and doubtless as much has been missed as is included.

114 Through the inspiration, and under the guidance, of Mr. A. R. Brown and the Hon. William Tungi, a committee was formed in 1918 to compile a dictionary, but, for various reasons, ceased to function after a few meetings. The need that a dictionary should include all forms in which a root is found will be readily appreciated by those who have noted the readiness with which consonants drop out in the Oceanic languages. There are, moreover, in Tongan, as in all languages, words which do not lie on the surface, some of which perhaps are obsolete or obsolescent, whilst others, though well known to the native, do not come within the ken of the foreigner even after years of use of the language. Until dictionaries are compiled including all words conclusions as to distribution of various streams of migration may rest upon insecure foundations insofar as philological evidence is relied upon.

192 There are words included in this list which are felt by
the Tongans to be loan words, largely from Fiji; there are
other words which by their form suggest borrowing from
Fiji or Samoa, but are not felt as loan words by the present-
[195] day Tongan. Bards seem frequently to embellish their
compositions with such evidences of foreign erudition. My
121 purpose has been, not to settle all the difficulties which the
dictionary-maker will meet, but to ensure that he will have
at his disposal the small amount of material which I have
collected, and to afford some slight assistance to anyone who
may desire to read the Tongan poems and tales, and also
to indicate the meanings of words which one may hear in
conversation but not find in his dictionary.

104 In orthography I fear that I have not lessened the con-
fusion that already exists. Two consonants have had
114 especially harsh treatment in Tongan, *b* or *p*, and *s* or *j*.
B and *p* are both used by Mariner who was in the group
at the beginning of the 19th century, *b* alone is used by the
English Methodist Mission, and *p* alone by the French
Catholic Mission. Dr. Baker used both. The dictionary
committee of 1918, which included representatives of the
Government, and of the English and French mission bodies,
decided, undoubtedly correctly, to employ but one symbol for

104 a sound which it is sometimes difficult to distinguish as voiced
or unvoiced. The practical difficulty of deciding whether it
114 was to be *b* or *p* remained unsolved in the few meetings that
were held. I have written *b*, not as an expression of my
104 opinion that it is the better symbol to employ, but because
it is used in by far the most important part of existing Tongan literature. As a matter of personal preference I have come to think that if a fresh start could be made *p* would be the better symbol.

104 The English Methodists wrote *j*, and the French Catholics
114 *s* to indicate a sound which Mariner writes *ch*. This
194 sound is always followed by *i*, and corresponds to the
Samoan *ti;* but the pronunciation *ch*, which I have heard
197 from an elderly Tongan, has practically disappeared, and in present-day Tongan the sound is hardly, if at all, distinguishable from English *s*. There are also words in which *s* is not followed by *i*, some of which may be genuine Tongan words, whilst others may have come later into the language,
104 probably from Samoa and Fiji. I have in this list
provisionally written *s* throughout, although the 1918 committee
114 decided to use *j* before *i*, and there was even, if I
remember rightly, a proposal to try to revive the old pronunciation *ch*. Such an attempt to arrest the progress of
194 phonetic change would probably prove abortive. Should the
dictionary-maker decide to employ *j* to represent the old
197 pronunciation *ch* examination of Samoan cognates will generally settle the question of *s* or *j*. All occurrences of *s* not followed by *i* will be examined bearing in mind the possibility of their having come late, or very late, into the language, though it must be noted that Mariner uses *s* in a few words; but this, of course, does not rule out the possibility of borrowing.

104 The stop ('), which is too often neglected in writing
Tongan, I have endeavoured to put in. One feels, however,
128 the disadvantage of absence from the country in dealing with a matter which requires such delicate discrimination, and quite probably I have committed errors both of omission and inclusion. Indeed, the whole paper abounds with indications of my ignorance, and other workers will, doubtless, find many inadequacies.

To the list of words I have added a note on measuring and counting, which, although not wide enough to include

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128 all the specific words used in counting and measuring various classes of objects, will, I hope, illustrate the principles sufficiently clearly.

[114] A few proverbial expressions also are added. My friend
the Rev. John Havea and myself collaborated in a collection
of proverbs which was published by the Bishop Museum
(*Proverbial Sayings of the Tongans*, Honolulu, 1922), and
the proverbs appended here are some that have come to
hand since the publication of that paper. As in the larger
collection I have translated each Tongan phrase literally,
114 and added some explanation of its use. My obligations to
Tongan friends are innumerable, especially to the Revs.
John Havea and John Kuli, Miss Alice Ahio, Hon. William
Tungi, and to several of the youths who were my pupils at
127 the Tubou College, Nafualu. A number of published works
have been consulted, but special use has been made of
113 Edward Tregear's *Maori-Polynesian Comparative Dictionary* (Wellington, 1891). Hazelwood's *A Fijian and English
and an English and Fijian Dictionary* (Waterlow and Sons,
Ltd., London, 1914), Pratt's *Grammar and Dictionary of
the Samoan Language* (Samoa, 1911), the Marist Mission's
Dictionnaire Toga-Français et Français-Toga-Anglais
(Paris, 1890), and the Rev. Shirley W. Baker's *An English
and Tongan Vocabulary, also a Tongan and English Vocabulary* (Auckland, 1897). There are a few references in the
vocabulary to a paper on *Tongan Astronomy and Calendar*
114 (Bishop Museum Press, Hawaii, 1922). A visit to Niua
Fo'ou in 1922 gave me a few words of the dialect of that
197 island, which differs somewhat from that spoken in the
128 main portion of the Tongan Group. These have been
included in the present vocabulary. Some brief notes on this
113 dialect appeared in the *Journal of the Polynesian Society*,
Vol. XXXI., No. 4.

23: Collocott M-4,5 (no date) 1925 OU9 Tonga OU9

802 counter calls aloud: "One, two, three," and so on up to ten, when a second man rises, holding a staff, and calls: "One." Then the counter goes on with the second ten, "One, two, three," and so on till the second ten is completed, when the man with the staff calls: "Two." So it goes on, the first man counting the individuals in groups of ten, the second man keeping the tally of tens, till one hundred, ten tens, is reached, when the second man calls "One hundred," and a third man jumps up and calls "One." The second hundred is counted in the same way as the first by the same two men, and when it is completed the third man, who has been silent meanwhile, calls "Two." If the number be so great that the tenth hundred is completed, the third man, he who keeps the tally of hundreds, calls "One thousand," and a fourth man joins in, and says "One," and it will be his task to keep the tally of the thousands.

PROVERBIAL EXPRESSIONS.

128 Since the publication of *Proverbial Sayings of the Tongans* (Bishop Museum Press, Honolulu, 1922) several other sayings have been collected, and are now added as supplementary to the previous collection.

539 1. *E taha ha lau, tagi ki he ba'a, tagi ki he fanua.* What a lot of
talk, cry to be barren, cry to have children. Used of one whose
195 complaints and requests are incompatible, who is never satisfied, but
539 always wants something different. The saying is attributed to Maui Kisikisi, who, when his mother complained of his idleness, set to work digging so vigorously that he shook the whole island of Eua, whereupon his mother complained of the dangerous disturbance he was creating. Maui expressed his exasperation in this saying, and flung his digging-stick far from him. Where the digging-stick struck the earth it scooped out into a huge hole, and out through the cliff-face into the sea, making an archway through the solid rock, all of which the unbeliever may see for himself on the weather coast of Eua.

539 2. *'Oku 'ikai ke tuhu'i 'e ha taha 'ae umata.* One does not point
195 at the rainbow. To point at the rainbow causes a swelling of the
[821] limb wherewith the pointing is done. Even to-day children are taught
[753] by their parents not to point at the rainbow.

3. *'Oku lava 'aė Tu'i Toga.* The Tu'i Tonga is garbed ceremonially *(lava).* This seems to indicate what is of so great importance that even the Tu'i Tonga takes note of it.

4. *Be kuo lulu mai mai be kuo kalae mai?* Does he come an owl
[825] or a rail? The meaning is: "Does he come full-handed or empty-handed?" it being held that when the owl comes he usually brings something with him, whereas the rail does not.

5. *Fakaloyo ki kafa.* Obeying, judging by, cord. The idea is that of a vessel dropped down a deep well, attached to a cord. The drawer of water cannot see when the vessel is full, but judges by the feel of the cord when it has reached the water, and when it is full. Figuratively the expression indicates sounding, feeling about, for information of that which is uncertain, out of sight.

6. *Fula kaunahu.* Pride (through the) mat-edge. This is an expression from the game of *lafo.* The *kaunahu* is the raised edge, or

23: Collocott M-4,5 (no date) 1925 OU9 Tonga OU9

539 19. *Kuo vala 'ae fonua.* The land is clad, i.e., protected, not exposed to its enemies.

195 20. *Lelei 'ae fale kae kovi 'ae bou.* The house is good but the posts are bad. This indicates a person whose body is well-built, but whose legs are thin.

21. *Tau 'i tu'a fuga.* Reached land outside the anchorage. This is used of unsuccessful effort, as of a boat which has not been able to make the anchorage, but has had to come in wherever she could.

22. *Tau fegogo fai fua ki 'ulu.* Struggle leaning on, helping each other, direct the course ahead. This indicates persons struggling along, helping each other with an already great burden, but going on always to greater things.

23. *To'a-ki-kaume'a.* Brave-for-friend. Courage on behalf of a friend. In connection with this expression is told the devotion of the daughter of cannibal parents who sacrificed herself to save a girl friend.

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PHASES OF THE MOON IN TONGA.

Some time ago I wrote a short paper containing all that I had then been able to gather concerning the naming of the days and
114 nights.* Since then a Tongan manuscript has come into my hands
127 with some fresh, and some confirmatory, material bearing on this
[128] subject. I translate it for comparison with my earlier paper:—

821 *Matakila*, when the moon begins to appear, and is said to be seen by gods and only afterwards by men.

Faka-ua and so on to *Faka-valu.* There is no *Faka-hiva*, or higher number, but the moon is then called *Tu'u-efiafi*, risen at evening, or in the afternoon.

Bunifaga, when the moon is bigger than half.

Fuofuavale, almost full moon.

Katoa-to, full moon, but setting (before day-break?).

Fakatau-ata, setting after dawn *(ata).*

Mama-loa, the moon sets just before sun-rise, and rays are seen both of the moon which has just disappeared, and of the sun which is about to appear.

Feahoaki, the moon has risen whilst it is still day, and is in the sky when the next day breaks.

Uluaki ahoia, the moon is still in the sky when the day breaks.

Tafaleu, when the flattening of one side of the moon's disc becomes apparent.

Ma'una, the moon is still in the sky when day has broken, but is past the full. This is a night that is noted by the bonito-fishers.

Matofitele, the waning of the moon is very apparent.

Lekeleka, the moon is very small.

Lekeleka mate, the moon has almost disappeared.

The writer adds a note that there are 14 names for the phases of the moon.

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[113] * *Tongan Astronomy and Calendar* (Occasional Papers, B.P. Bishop Museum, Vol. 8, No. 4, Honolulu, 1922).

26: Buck D,E-4 (no date) 1935 OU9 Tonga OU9

778 Fortunately Williams[9] reproduced a drawing of the
127 goddess. A copy, with the position reversed purposely for
[128] comparison with other figures to follow, is shown in fig. 1.

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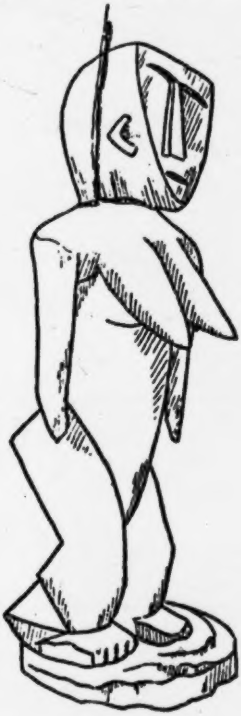

Fig. 1.
Tongan image, after Williams.

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[171] The figure has characteristic features which readily distinguish it from wooden images from other parts of Polynesia. The head is poorly drawn but it is evident that the brows, nose, mouth, and ears are clearly defined. The outstanding features, however, are the large pointed breasts, the position of the arms which are free from the body with somewhat pointed hands hanging straight down, and the exaggerated back-projection of an enlarged gluteal region. The slightly flexed legs are short in proportion to the thighs and the feet are notched to represent toes. The figure stands on a base cut out of the same block of wood.

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[9] Williams, *Opt. cit.*, p. 274.

The image evidently did not pass into the museum of the London Missionary Society in London for it is not amongst the collection handed over by the London Missionary Society to the British Museum. Williams stated that he prized it very highly so he probably kept it for some time until at last it went into circulation along channels which unfortunately did not lead to the British Museum. My attention was drawn to the Williams image by Captain A. W. F. Fuller who has a similar figure in his own wonderful collection. Through his courtesy, I am enabled to reproduce it here in fig. 2. These old authentic artifacts are so valuable for comparative studies that I deem it advisable, when possible, to show views of the front, back, and right side of all figures as in the method of picturing stone adzes.

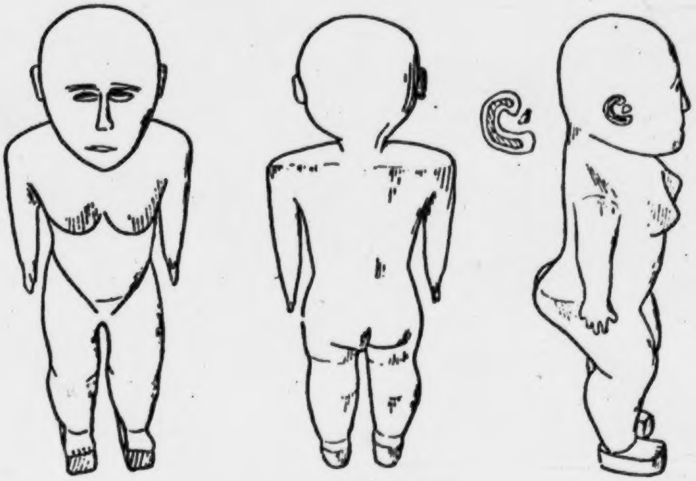

FIG. 2.

Tongan Image in Fuller Collection.

Made of ironwood, well polished. Height, 372 mm.; head-width, 65 mm.; shoulder-width, 144 mm.; width between hand extremities, 119 mm. Head rounded, with well-marked brows, excised elliptical eyes, good nose, and excised ellipital mouth; projecting ears with groove along helix and separate knob to represent tragus. Shoulders wide; arms free from body, extended downward with no flexion at elbows; hands thinned down with thumbs to the front. Breasts prominent and showing female sex. Abdomen not protruding, no navel, and gluteal region prominent. Thigh long and flexed; leg short with well developed calf.

26: Buck D,E-4 (no date) 1935 OU9 Tonga OU9

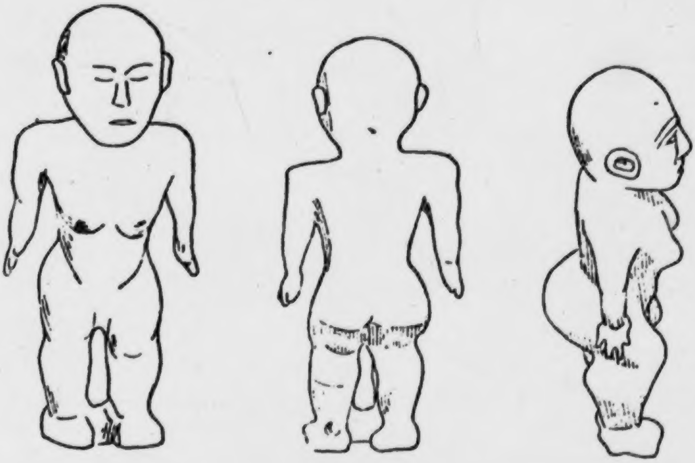

FIG. 3.

Ivory Image in British Museum (Tah. 133).

Whale-ivory, nicely polished. Height, 121 mm.; shoulder-width, 48 mm. Head rounded; brows, eyes, and nose well marked, with excised mouth; ears project and form complete ellipse without helix groove or separate tragus. Shoulders wide and rounded off; arms free of body, hanging down without elbow flexion; hands with thumbs to the front. Breasts prominent and denote female sex. Abdomen flat, no navel, and prominent gluteal region. Thighs flexed and feet joined by connecting-piece through which hole is pierced.

IVORY IMAGES IN BRITISH MUSEUM.

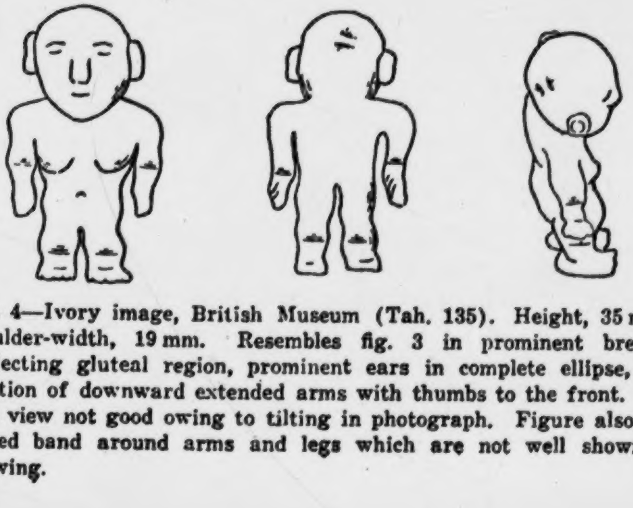

FIG. 4—Ivory image, British Museum (Tah. 135). Height, 35 mm.; shoulder-width, 19 mm. Resembles fig. 3 in prominent breasts, projecting gluteal region, prominent ears in complete ellipse, and position of downward extended arms with thumbs to the front. The side view not good owing to tilting in photograph. Figure also has raised band around arms and legs which are not well shown in drawing.

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in the handling of clubs from Tonga, Samoa, and Fiji must add the greatest weight to their opinions. If the human-figure motive had been adopted by Samoan craftsmen, we would expect to find its presence in some, at least, of the numerous authenticated Samoan clubs in various museums and private collections. The absence of the human-motive is evidence that it never entered Samoan carving-technique as applied to weapons. This lack of a human-motive in Samoan club-carvings may be taken as evidence in support of the argument that the Samoan image is due to Tongan influence.

IMAGES FROM CENTRAL POLYNESIA.

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In order to stress the importance of the position of the arms and some technical details in the Tongan images, a few images from central Polynesia are here figured for comparative purposes. By central Polynesia, I mean the Society islands, but I would also include for the purposes of this study, the Cook and Austral groups. The examples selected are the smaller images in wood as such are more comparable with the Tongan material.

IMAGES FROM TAHITI.

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In Tahiti, the inanimate representatives of the gods were termed *to'o* (cf. Maori, *toko)* and were usually made of a twined sennit covering over a wooden core with outer decorations of red feathers. The human form was rarely used. Wooden images, termed *ti'i* (Cf. Rarotongan, *tiki)*. were used by sorcerers to represent their familiar spirits. These were of both sexes, and an example of each is here figured as, from size and material, the technique is more readily comparable with the Tongan images. See figures 8 and 9.

The Tahitian figures are not so realistic as the Tongan, and their main differences consist in the treatment of the ears, the square shoulders with the straight edge across the back, the position of the arms, the nipples instead of breasts in the female figure, the projecting abdomen and navel, and the normal treatment of the gluteal region. It is evident in the two Tahitian figures that sex is indicated by the inclusion of the sex-organ, and the female breasts are not any more developed than the male. In the Tongan figures, the sex is indicated by the size of the breasts and the sex-organ is ignored.

(To be continued.)

[pp. 97-152 not processed]

26: Buck D,E-4 (no date) 1935 OU9 Tonga OU9
Samoa OU8

the round lace-caps worn at one time by old ladies of T.
European stock. If the missionaries' wives wore such 532
caps,* the model for the head-gear of the goddess is found. 171
Someone in central Polynesia, possessed of some Tongan material and a sense of humour, simply tacked a piece of the Tongan circular textile on to the head of a rejected Aitutaki image. The neck- and waist-additions followed as a matter of course, and so a puzzling composite object was produced.

ACKNOWLEDGMENTS. T

This paper forms an introduction to the study of the 121
numerous inanimate representatives of the Polynesian gods 127
which escaped destruction and found refuge in various T
museums. Of these sanctuaries, the British Museum houses 127
an enviable number. I have to thank Captain T. A. Joyce and his staff in the Ethnographical Department of the British Museum for facilitating in every possible way my examination of the rich material in that wonderful but woefully overcrowded institution. My thanks are also due to Captain A. W. F. Fuller and Mr. Oldman for access
to their private collections and for drawing my attention T
to the Tongan images. The line drawings in this paper 128
were prepared from photographs taken with a Leica camera
by myself and thrown on to the drawing paper with a 126
Leica enlarger. The enlarging apparatus and the employ- T
ment of Mr. R. W. Foster of Yale University to make 128
the drawings are due to the courtesy of the American 122
Research Council in awarding me a Grant-in-Aid for the study of the material culture of central Polynesia.

CONCLUSIONS. T

Wooden images, though not common in western Poly- S
nesia, were made at Haapai in the Tongan group and the 532
solitary specimen from Samoa was probably due to Tongan 171

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*In the early years of the eighteen hundreds, say the 'twenties and 'thirties, the caps worn covered the head, and the sides were
continued in broad bands more or less long coming from behind the T
ears over the shoulders and down the breasts. See portraits of [113]
missionaries' wives in W. Morley, *History of Methodism in New Zealand;* Mrs. W. White, p. 43; Mrs. N. Turner, p. 43; Mrs. J. Hobbs, p. 52; Mrs. C. Creed, p. 75; Mrs. T. Buddle, p. 76. In the 'seventies and 'eighties some caps at any rate were quite small things sitting on the top of the head only, and with no pendent ornaments.—ED.

28: Buck D,E-4 (no date) 1941 OU9 Tonga OU9

534 171 The reeds may be regularly graduated in length from the longest to the shortest or they may be arranged in a sequence in which the lower ends present an irregular appearance.

Though Tonga is the only Polynesian group figured by 534 Edge-Partington, pan-pipes were also known in Samoa. A 127 solitary instrument in the British Museum has been wrongly [114] attributed to New Zealand. I saw four Tongan instruments in the British Museum and one in the Berne Museum. As I took photographs and notes on the five instruments, I give the details here to place the Tongan technique on record.

TONGA

The authenticity of pan-pipes in Tonga is placed beyond doubt by Cook (3, 3rd vol., pl. 21, fig. 5), who saw the instrument being played and figured a specimen, which Andersen reproduced in his work. The instrument figured is evidently the one I saw in the British Museum attributed to Cook. The other three in the British Museum were collected on a voyage of *H.M.S. Herald.* The instrument in the Berne Museum was collected by Webber, the artist with Cook's 534 third expedition. The five instruments are shown in fig. 1 128 and the number of reeds, length in inches of the shortest and longest reeds, and the width of the instruments are given in the accompanying table. The British Museum specimens are grouped together under the number 56/7-9/6 and the Berne Museum instrument is numbered Fr. 22.

534 The reeds consist of varying lengths of bamboo arranged in a single row with the upper open ends in a straight line and the lower closed ends forming an irregular line except in the smallest instrument (*e*). The open ends are trimmed both back and front into a concave curve, the curve on one surface being usually deeper than the other. The reeds are bound with two horizontal rows of coconut-husk fibre, an upper row a little below the open ends and a lower row just above the level of the closed end of the shortest reed.

[128] The instruments in fig. 1 are drawn in the position in which they were photographed by me with the shortest reed on the right, but I have no information as to whether or not this was the position when played. However, when held in this position, the deeper curves of the open ends are toward the mouth and one may therefore assume that this was the

31: Nayacakalou E-4,5 (1957-1958) 1959
OU9 Tonga OU9

LAND TENURE AND SOCIAL ORGANISATION IN TONGA

By R. R. NAYACAKALOU

INTRODUCTORY NOTE

THIS IS THE first of several papers examining the relationship between 121
land tenure and social organisation in three Pacific Island communities—
Fiji, Tonga and Samoa. My initial interest in the subject lay primarily in
elucidating the social implications of the Fijian land tenure system, especially
in its relation to present-day developments in the social and economic fields;
but it soon became evident that for such a study the comparative approach
would give a firmer base—hence the inclusion of Tonga and Samoa. Choice
of these territories arose partly from practical considerations[1] but partly
also from the fact that their systems are variant from the Fijian type in
different ways.

The plan of the papers will follow closely the plan of the research which
forms the basis of them. The relation between land tenure and social [128]
organisation will be studied separately in respect of Tonga, Samoa and then
Fiji, and a final paper will draw the threads together in a general way,
indicating the relevance of the conclusions to the Fijian situation in
particular.

The research work on which the paper is based was carried out from 101
early December, 1957, to mid-February, 1958; I spent a total of five weeks
in Tonga, three weeks in Samoa and three weeks in Fiji. In view of the 127
brevity of these periods, I have depended rather heavily upon existing documentary
material for the background knowledge in the light of which my own
material has been presented. I feel that while my own contribution has its 114
value, the brevity of the fieldwork should be kept in mind in assessing the
value of the conclusions drawn.

In Tonga I stayed in the capital town of Nuku'alofa with an old friend,
Mr. Mahe Uliuli Tupouniua, at the time Government Auditor in Tonga and
formerly a colleague at the University of Auckland. My interpreter was
Mr. Puniloa Afu, a Training College student on vacation at the time. My
centre of research was four miles from where I lived, but I was able to get
there and back each day by motor cycle. In Samoa, through lack of a suitable 000
informant and also owing to the refusal of the people to discuss land
matters in a village which I intended to investigate in detail, I was unable
to obtain much first hand information. But owing to the very willing cooperation
and assistance of the members of the Lands Department, and
particularly the assistance given me by the Judge of the Land and Titles
Court, I secured information which I think worth publishing. In Fiji I
worked mainly in Suva, checking up on and expanding the knowledge already
gained in connection with an earlier field trip.

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[1] These were the most accessible considering the normal movements of [114]
passenger traffic in the area and the time at my disposal; also they were of
special interest to me as I was responsible for the teaching of the course
on the ethnography of Fiji, Tonga and Samoa given at the Department of
Anthropology in the University of Auckland.

I should now like to add an expression of my deepest gratitude to all 122
who have assisted in the work of which these papers are the result. The project was financed by a grant from the Carnegie Social Science Research Committee of the University of New Zealand, without whose assistance the study could not have been made at all. Professor W. R. Geddes made valuable suggestions in regard to the initial definition of the problem, and as he went away on leave before I left Auckland, the task of direction fell on the shoulders of Professor R. Piddington. In the field I was assisted in a great many ways by people who cannot all be mentioned, but in particular I would wish to add the following to those already mentioned: the Hon. Tu'i Pelehake, Minister of Lands in Tonga, and the members of the Lands Department there; the Chairman of the Copra Board in Tonga; the Hon. G. R. Powles, High Commissioner for Western Samoa, for permission to do research in Western Samoa and for putting me in most effective touch with the officers in his Lands Department; Mr. Ian Stirling (Chief Surveyor) and other members of the Lands Department in Western Samoa; and Mr. Pulotu McCarthy—a wise old man whose family I had met in New Zealand and who provided me with quarters in Apia. In Fiji, my friend Mr. G. J. T. Hansen, Secretary to the Native Lands Trust Board, brought me up-to-date on the latest developments in native land policy there.

1—Historical Background of Tongan Land Tenure

The main features of the land tenure system operating in Tonga 421
today are well documented. In a moment I shall be summarising them 423
before proceeding to a consideration of how the legal plan is actually [128]
applied to realities on the ground, and of the ways in which the system is related to the organisation of social affairs in village life.
But at this point it would be well to point out that as it is set out in 171
the various legislative enactments of the Government of Tonga,[2] the 421
system is, in one major respect, well out of the ordinary run of land 423
tenure systems in Oceanic societies: this is its individualistic character.[3] Although this is decidedly unusual within the context of land tenure in Western Polynesia, it is not so extraordinary if considered in relation to the traditional form of Tongan society.

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[2] The most important are the Land Act 1927 (Chapters XXVII of *The Law of Tonga*); the Land Act (Amendment) Act 1934; and the Leases [113]
(Renewal) Act (No. 15 of 1934).

[3] The distinction between "individualistic" and "communalistic" forms of tenure is not always easy to draw, but in this context I shall mean by "individualistic" that in principle one and only one individual is regarded and accepted as having sole rights to a piece of land. Rights may vary in type from absolute ownership of the soil to merely usufructuary rights; but the distinction is irrelevant, for the definition applies *given* these rights. Such an individual may, if he wishes, confer some of the benefits of these rights upon others, but this does not give them a right other than that which he has himself agreed to give. Such a system differs fundamentally from a "communalistic" one in which the rights involved are conferred upon a group of individuals *at the same time*, so that each of them has a right *equal* to that of each of the other members of the group. All powers of administration repose in the whole group, and although certain members only may appear to exercise them, they are clearly recognised to be acting for and on behalf of all members. Under such powers they can regulate priorities as to actual use of the land.

32: Staveley & Douglas D-4 (no date) 1959
OU9 Tonga OU9

in Auckland. This was the third week after the collection of the 125 specimens from the subjects. The specimens were refrigerated at about 126 4° C. continuously from the time of collection.

The subjects selected by our colleagues have no known foreign ancestry. There were 98 males and 102 females, ranging in age from 14 to 43 years. Their distribution according to the island of their birth, is as follows:

Tongatapu	125
Vava'u	33
Ha'apai	26
Eua	8
Ninafo'ou	5
Mu'a	1
Niuatoputapu	2

METHODS[5] AND RESULTS

The ABO System:

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The red cells were tested with anti-A, anti-B and anti-H (Ulex Europeus). Those reacting with anti-A were titred against a group B serum showing a marked difference in titre between A_1 and A_2 cells. The serum from each individual was tested with A_1 and B cells independently.

TABLE I

No. tested	Phenotypes per cent				Genes per cent		
	O	A_1	B	A_1B	O	A_1	B
200	43	45.5	8.5	3[6]	65.37	28.42	6.21

No A_2 specimens were found.

The MNS System:

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Tests were made with anti-M, anti-N, anti-S, anti-U, anti-M^g and anti-Vw. Specimens positive with anti-S were tested with anti-s.

TABLE IIa

No. tested		Phenotypes per cent			Genes per cent	
		M	MN	N	M	N
200	OBS.	29.5	59.5[7]	11.0	59.25	40.75
	EXP.	35.1	48.28	16.62		

TABLE IIb

No. tested	S Positive per cent	Genes per cent		Chromosomes per cent			
		S	s	MS	Ms	NS	Ns
200	3.5	2.50	97.50	2.31	56.94	0.19	40.56

All specimens were positive with anti-U and negative with both anti-M^g and anti-Vw.

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[5] Testing methods used were those detailed by Staveley and Douglas, 1958.

[6] Expected A_1B = 3.5 per cent. $Chi^2 = 0.1082$. $P = 0.75$.

[7] $Chi^2 = 0.241$. P. = 0.56.

32: Staveley & Douglas D-4 (no date) 1959
OU9 Tonga OU9

The P System:

Specimens were tested with anti-P_1 serum and P_2 samples were then tested with anti-P + P_1. 143

TABLE III

No. tested	Phenotypes per cent		Genes per cent	
	P_1+	P_1—	P_1	P_2
200	35.5	64.5	19.69	80.31

All specimens negative with anti-P_1 were positive with anti-P + P_1.

The Lewis and Secretor Systems:

Anti-Le^a and anti-Le^a + Le^b sera were used with the red cells. Saliva specimens were tested in titration for secretion of AB & H substances and for secretion of Le^a substance. Saliva from group O individuals was tested with anti-H, from group A & AB with anti-A, and from group B people with anti-B. 125 128

Twenty-three of the saliva specimens were not included as they were unsatisfactory, mostly due to an accident during the heating when water got into the jars. The Lewis types of the corresponding blood specimens have also been omitted from the results in Table IV.

TABLE IV 143

No. tested	Phenotypes per cent			Phenotypes per cent		Genes per cent	
	Le^{a+}	Le^{a-b+}	Le^{a-b-}	Se	se	Se	se
177	23.7	61.02	15.25	69.49	30.51	44.76	55.24

Note: Le^a substance was found in the saliva of those whose red cells were Le^a+ or Le^{a-b}+. Half those of the type Le^{a-b}— were found to secrete AB or H.

The Rh System:

The sera used for testing in this system were: 125 128

4 anti-C sera (of which 2 were 'pure' anti-C)
1 anti-C^w serum
1 anti-c serum
2 anti-E sera
1 anti-D serum (saline agglutinating)
1 anti-D serum (incomplete—used with ficin treated cells)
1 anti-V serum
1 anti-e serum (with samples positive with anti-E)
1 anti-f serum for the confirmation of R_0 and R_1)

32: Staveley & Douglas D-4 (no date) 1959

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TABLE V[8] 143

No. tested		Phenotypes per cent					
		CCDee	CcDEe	ccDEE	CcDeef	ccDEef	CcDEEF
200	OBS.	46.5	36.5	4.0	8.5	4.0	0.5
	EXP.	47.61	33.46	5.88	8.62	3.04	0.02

Chromosomes per cent			
CDe	cDE	cDe	CDE
69.00	24.25	6.25	0.50

No samples positive with anti-V were encountered.

The Duffy System:

An anti-Fy^a serum was used with all specimens and those giving negative reactions were tested with anti-Fy^b to recognise Fy^{a-b-}, but this type was not found. [125 128]

TABLE VI

No. tested	Phenotypes per cent		Genes per cent	
	Fy^{a+}	Fy^{a-b+}	Fy^a	Fy^b
200	98.5	1.5	98.78	1.22

The Kell System:

All specimens were tested with anti-K, anti-k, anti-Kp^a and anti-Kp^b. [125 128]

TABLE VII[9]

No. tested	Phenotypes per cent		'Genes' per cent	
	KKp^{b}k	Kp^{b}k	K^b	k^b
200	0.5	99.5	0.025	99.75

All specimens were negative with anti-Kp^a.

The Kidd System:

Only anti-Jk^a was available. [125 128]

TABLE VIII

No. tested	Phenotypes per cent		Genes per cent	
	Jk^{a+}	Jk^{a-}	Jk^a	Jk^b
200	72.5	27.5	47.56	52.44

Tests in other Systems:

The specimens were tested with the other available antisera; results are shown in Table IX. 125 128 143

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[8] Calculations following Mourant, 1954.

[9] Following the notation suggested by Chown and Lewis quoted by Allen, Lewis & Fudenberg 1958.

32: Staveley & Douglas D-4 (no date) 1959
OU9 Tonga OU9

TABLE IX

125
128
143

Antiserum	Number Tested	No. of Positive Reactions
Anti-Di^a	200	0
Anti-Wr^a	200	0
Anti-Js^a	200	0
Anti-Vel*	86	86

* Used with group 0 specimens only.

The Gm Groups:

The method used was that described by Moullec et al.,[10] with the modification that tubes showing inhibition of the agglutination of the sensitised cells by the rheumatoid serum were centrifuged before the results were accepted as Gm^a positive.

202 white blood donors in Auckland were tested as a control series.

TABLE X

	No. Tested	Phenotypes per cent		Genes per cent	
		Gm^{a+}	Gm^{a-}	Gm^a	Gm
Tongans	200	100	0	100	0
Blood Donors	200	58.00	42.00	35.19	64.81

Abnormal Haemoglobins:

In all the 200 specimens the search for abnormal haemoglobins was made with the following tests:

1. (1) Sickling Test (using the Sodium Metabisulphite method).
2. (2) Films stained for 18 hours with 1% cresyl blue in citrate saline were examined for the so-called haemoglobin-H 'inclusion bodies'.[11]
3. (3) Films, stained with Leishman stain, were searched for erythroblastaemia and hypochromic macrocytic red cells.
4. (4) The alkali denaturation method described by Singer et al.[12]
5. (5) Paper electrophoresis with barbitone buffer at pH 8.6.

It was not expected that haemoglobin-H would be separated on paper electrophoresis as the haemoglobin solutions were prepared by freezing the washed red cells from the Alsever's solution. However, none of the films stained with cresyl bllue showed the inclusion bodies.

No haemoglobin other than A was found, and the Leishman films showed no red cell abnormalities.

SUMMARY AND ACKNOWLEDGEMENTS

143

Results of testing 200 Tongans for various blood group systems and for haemoglobin variants are reported. The systems investigated were A$_1$A$_2$BO, MNS, P, Lewis, Secretor, Rh, Duffy, Kidd, Kell, Diego, Vel, Wright, Sutter and Gm. No haemoglobin variants were found.

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[10] Moullec, Kherumian, Sutton & Espagnon, 1956.

[11] A preparation showing these inclusion bodies was kindly sent to us by Dr. J. A. M. Ager, St. Thomas' Hospital, London.

[12] Singer Chernoff and Singer, 1951.

33: Palmer A-4 (no date) 1963 OU9 Tonga OU9

CONCLUSION

000 Pottery from site 20, Fiji, displays certain rim forms, vessel shapes and decorative techniques that are also found in site 21, except that sherds with the *pointillé* style of fine incised decoration are lacking. It also shows that both paddle and anvil and hand-moulding techniques were in use in the manufacture of vessels. The flat-bottomed dish shape, the extensive use of outcurving flat rims, and the notched edging on the lip are paralleled in early pottery from sites in New Caledonia or the Ile des Pins on the one hand and Tonga on the other hand.[14] In view of the fact that these sand hills may be exported for their iron ore content, it might be worthwhile that more extensive surface collections and some excavations were undertaken there in the immediate future.[15]

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Eastern Polynesian-Type Adzes from Tonga

BY J. B. PALMER

412 These notes describe two gripped or tanged adzes of a rare type in west
[128] Polynesia.[1] Few adzes from this area show a triangular cross-section with
the apex to the front which, in some cases, has been reduced in width to
form a ridge, except where the bevel modifies the cross-section. Many
412 archaeologists and ethnologists, particularly in New Zealand, know this adze
171 as the hog-back, its more familiar name. Golson records the almost complete
absence of the type from the adze collections he examined in Tonga[2] so that
any localised specimen is important for present studies in the type's
distribution, not only in Tonga itself but in the whole of west Polynesia.

127 Both specimens are part of a very fine Oceanic collection in the Pigorini
Museum of Ethnology and Prehistory in Rome and the Museum's Director,
[122] Dr. P. Sestieri, has kindly allowed me to publish these notes and drawings.
The adzes were acquired from J. F. G. Umlauff of Hamburg in March 1886
by E. H. Giglioli, whose collection forms the major part of the Pigorini
Museum's Oceanic material. A feature of the Giglioli material is the detailed
information on the labels which gives provenance, tribal names where known
and references to descriptions of similar specimens in the literature.
Giglioli's labels can be considered an accurate record of Umlauff's informa-

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[1] Golson 1959:3.

[2] Golson 1957:7.

35: Palmer A-4 (no date) 1963 OU9 Tonga OU9

MEASUREMENTS 412

	No. 1089 Hahake	No. 1090 Eua
Total length	290 mm.	132 mm.
Length of blade	204 mm.	93 mm.
Width of cutting edge	47 mm.	35 mm.
Width of poll	43 mm.	Pointed
Length of bevel	80 mm.	57 mm.
Width butt shoulder	55 mm.	30 mm.
Thickness butt shoulder	70 mm.	36 mm.
Thickness at poll	45 mm.	18 mm.
Thickness at chin	57 mm.	34 mm.

The terms used in this description follow those put forward to the New Zealand Archaeological Association by Janet Davidson whose article[3] presented the findings of a study group from Auckland University Archaeological Group. 128

Although these Pigorini specimens are from an ethnographic collection, 000 the presence of this adze type in two separate Tongan localities is significant. It offers some possibility of excavating the type as part of an archaeological assemblage in that region, and if this possibility is realised then its cultural affinities will be more clearly understood.

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[3] Davidson 1961:6.

Tooi, Teeterree and Titore 000

BY ORMOND WILSON

In the Alexander Turnbull Library hang two portraits, somewhat dark and cracked with age, done in October 1818 by James Barry who two years later painted the more famous picture (also in the Alexander Turnbull Library) of the Rev. Thomas Kendall with Hongi and Waikato. The 1818 portraits depict young men, dressed in conventional European style, clean shaven and apparently without tattoo. Their names are given as Tooi and Teeterree.

Tooi appears frequently in the missionary records from 1814 to 1824, and in the accounts of visitors to the Bay of Islands from 1820 to 1824. During the greater part of the years 1814-19 he was abroad, in New South Wales and England. He was Kendall's first instructor in the Maori language when the two met at Parramatta early in 1814.[1] He was with Kendall on

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[1] *Missionary Register*, 1815:103, Marsden to C.M.S., 15 March 1814; ibid., 198, Marsden to C.M.S., 20 September 1814.

37: Collocott M-4,5 (no date) 1924
OU9 Tonga OU9

The pretty shrub called Barbadoes pride (*caesalpina pulcherrima*) is valued by the country people for its use in the detection of theft. If a sprig be applied to the throat of a suspect, if he be guilty it is supposed to twine tightly around it, even to the point of choking him, unless he confesses his fault. This belief is so firmly credited that the mere production of the accusing sprig is often enough to force a confession from the accused if he be guilty,—so great is his dread of the ordeal. 000

I wish to express my great appreciation of the help given me by Mr. L. O. Inniss, of Port of Spain, in supplying most of the data on which this note is founded. My thanks are also due to Mr. R. O. Williams, Superintendent of the Botanic Gardens, for assistance received.

James Hornell.

Tongan Myths and Legends, III.[1]

The following myths and legends were written in Tongan, at the instigation of the late Rev. Dr. J. E. Moulton, by the late Rev. David Tonga, and published in Dr. Moulton's Tubou College Magazine. Some account of the first, or Creation Myth, has already appeared in *Folk-Lore*, but a corrected and more literal version is now given, for the better comprehension of those which follow. 128

Creation Myth.

Long ago seaweed and mud sticking together were floating about in the sea, and at last drifted ashore on the island of Totai in Bulotu (Paradise). The seaweed and mud thereafter separated, and there grew up between them the iron (?) rock called Touiafutuna. After a time the rock was agitated by a great trembling, and there was a roaring as of thunder; then it split asunder, and there leapt forth a pair of twins, male and female, named respectively Biki and Kele. Again the strange disturbance, heralding the birth of another pair of twins, male and female, Atungaki and Maimoa-a-longona. Twice again were these commotions repeated, followed in each instance by the 539

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[1] See vol. xxx., pp. 234-8; vol. xxxii., pp. 45-58.

39: Gerstle & Raitt C,Q-4,5 (1952-1972)
1974 OU9 Tonga OU9

PREFACE

121 What we present here is basically a photographic narrative—though by no means comprehensive—of the story of Tonga: showing how the myriad, complex elements of her past evolved and became interwoven into the tapestry of life that this small but proud Polynesian Kingdom reveals today as her own.

128 Captions are bi-lingual; they were translated into
Tongan loosely, rather than verbatim, in order to
127 capture their meaning. Reproduced here are
engravings taken from valuable, often rare volumes
of exploring voyages for the benefit of Tongans who
otherwise would not have the opportunity of seeing
how early life in Tonga was—or at least how it was
viewed by some of the first visitors to Tonga.
126 Combined with these are modern-day photos which
our photographer was able to procure only through
the hospitality and kindnesses of many people in
Tonga.

128 Producing *Tonga Pictorial—Kupesi 'o Tonga* was a mammoth undertaking which required the assistance and cooperation of countless people. Among those persons whom we of the Tofua Press would like to extend our special thanks for aiding us in our work, advising us about our problems, and caring for us in our times of need, are: Princess Pilolevu, the Government of Tonga, Honorable Ve'ehala, Toe'umu Fineanganofo, Minioneti Misieli, Tupou Posesi Fanua, Futa & Kaloni Helu, Laumakia Tupou, Liu & Maile Tongilava, Tu'ifua 'Utoikamanu, Pat Matheson, Siosiua Fonua, Tonga

[P. V-A]

▸ 128 & Seinilevu Faletau, Sione Tupouniua, Sione Latukefu, Moli & Fe'ao Ngaluafe, Sio Mangisi, Poet Laureate Malukava, Margaret Blundell, 'Anau Fanua, Tevita 'Ofa Helu, 'Okusi Mahina, Dr. James Hitchcock, Mike Bailes, 'Elisapeta Falemaka, 'Osika Kami, Tupou Vea, H.G. Cummins, Sitiveni Vete, Dick & 'Emelita Johnston, Paul & Betty Meyer, Tom Huston, Tim Hill, Director Dick Cahoun and members of the U.S. Peace Corps, including Mary Ann Ross Ma'u, Peni Moblo, Rick Crispin, Marge Litsinger, Richard Brayley, Dan & Sandy Ozog, and others.

Our appreciation to libraries for invaluable assistance includes Ronald Silveira de Braganza, Charlotte Oakes and the staff of the Mandeville Department of Special Collections at the Central Library of the University of California, San Diego, (La Jolla), which houses the Raitt-Tonga Collection and the Hill Collection of Pacific Voyages. Equally sincere thanks go to Curator, Renee Heyum, and staff at the Gregg Sinclair Library of the University of Hawaii, Honolulu. Also to Margaret Titcomb and Judy Green of the Bernice P. Bishop Museum Library, Honolulu.

And as this book was compiled primarily for the people of Tonga, it is to them—all of them—that we owe the deepest respect and appreciation . . . for not only does the story belong to them, but, in a very real sense, they *are* the story.

[P.V-B]

Malo 'aupito pea mo e 'ofa lahi atu.

000 percentages may not be strictly comparable
because of different tests used. Rivers, for
example, relied largely on the Holmgren wool-matching
test, which with white males, according
to Clements, has given a diagnosed incidence of
colour-defect about half that given by the Ishihara
test. Clements' work on American Indians,
American Negroes and some of the work on
white males that he summarizes were all done
143 with the Ishihara test. Comparing these three
groups with Tongan males, it may be noticed
that the percentage incidence of red-green blindness
is: Whites, 8·03; Tongans, 7·46; American
Negroes, 3·7; American Indians, 1·7. These
figures, taken in conjunction with the weight of
evidence derived from all available test results,
definitely suggest a possible racial difference in
the incidence in males of red-green colour-blindness.

Colour-blindness among white females has a
definitely much smaller incidence than among
males. A generally accepted figure is about
0·4 per cent. Failure to discover a case of
Tongan female colour-blindness was therefore
to be expected.

[151] Of the five Tongan males with defective colour-vision,
two were completely green-blind (Ishihara
terminology based on responses to Plates 22
to 25 inclusive). The proportion of green-blindness
to red-blindness among Whites, Negroes,
and American Indians as reported by Clements
(*l.c.* 420) is also in the approximate ratio of
three to one.

143 One peculiarity was noted in the response of
Tongan subjects to certain plates in the Ishihara
151 test. According to Ishihara, Plates 18 to 21
125 inclusive can hardly be read by the majority
of normal subjects. Ten Tongan males, however
(14·92% of those tested), and 13 females (19·11%
of females tested), though otherwise perfectly
normal in their colour vision, showed not the
slightest hesitation in reading the hidden numbers
on these plates and were very puzzled when
others, including ourselves, were unable to see
[128] what was to them clear and evident. I am
unable to tell whether this Tongan facility is due
to peculiarity in colour vision or to defects in
the test itself. The hidden numbers become
visible if the plates are looked at through a blue
glass. Possibly the normal vision of some Tongans
is more sensitive than that of Europeans to small
[128] differences in brightness. On the other hand,

151 it may be noted that Collins (*l.c.* 219–220) using
143 the fourth edition of the Ishihara test in which
125 Plates 10 and 11 appear to correspond to Plates
128 18 and 19 of the seventh edition, found that
4% of whites with normal colour-vision could read the hidden number in Plate 10 (18) and 27% could read the hidden number in Plate 11 (19). Collins regards the results for Plate 10 as distinctly curious and puzzling, but she believes that Plate 11 is proved to be an unsatisfactory test-plate. It may be noted that the 'deviant' normal Tongans all read all the four plates with equal ease.

822 In regard to general colour-discrimination,
[125] Tongan informants, male and female, were asked to name a series of colours in a colour chart. Specific colour names collected were: *hinehina*, cream or white; *tetea*, skin white: *felofelo*, yellow or gold; *enga* or *engeenga*, yellow; *kula*, red; *uliuli*, black. There is no specific colour-name for blue and possibly none for green either. The Tongans use many descriptive colour-names. To give a few examples: *lanu moana*, blue (*lanu*, colour, *moana*, sea); *lanu mata*, green; *panefunefu*, brown (dim, obscure, indistinct); *memea*, tan or buff (drab); *kupesi*, dark brown (stencil for making bark cloth); *loufusi*, deep green (banana leaf). Degrees of saturation are expressed by such qualifying words as *mama*, light, and *fakapo'opouli*, dark.

151 In view of colour-test results, the lack of a
822 specific colour-term for blue need not necessarily imply a poor discrimination for this colour, nor does the relatively poor Tongan colour-vocabulary necessarily connote weak colour-discrimination.[4] All informants were at pains to indicate that they had no difficulty in distinguishing clearly each of the colours in the colour chart. Their difficulty, they said, was simply one of finding words to
822 indicate clearly discriminated colours. Doubt-
182 less, as C. S. Myers has suggested,[5] colour names are formed where they are needed; where they are needless, they will not be formed, however great the sensibility of a people to specific colours. The Tongans seem to have developed sufficient colour terms adequately to control their

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[113] [4] For a summary of the philological evidence and the theory based thereon, *see* Klineberg, Otto: *Race Differences*, New York, 1935, 142–144, and Clements, *l.c.* 420–422.

[113] [5] Myers, C. S.: 'Some Observations on the Development of the Colour Sense,' *Brit. J. Psych.*, 2, 1908, 361.

The areas of high population density are the western 161
end of Tongatapu and all but one of the islands of 162
Ha'apai, and population densities in these areas
have roughly doubled since 1931 (Table 1). The 128
analysis is based partly on material collected by observation and questioning throughout Tongatapu and Ha'apai, and partly on more detailed data for three villages with moderate to high population densities (Table 2 and Fig. 1).

In areas of high population density fallow periods 241
are shorter and cropping periods tend to be longer 182
than elsewhere. In Ha'apai the cropping period is
usually from three to five years, compared with the
two to three years more common elsewhere. This 241
is indicated by item 6 of Table 2, for the ratio of
total per capita garden area to the per capita area 128
cleared in 12 months gives an estimate of the life 182
of gardens. The figure for Holopeka, however, appears rather high, as in this village few gardens were seen which had been cropped for more than four years, and it seems likely that for some reason a smaller area than was usual had been cleared for new gardens that year.

The length of the fallow period, on the other 241
hand, is only one to three years in Ha'apai as compared 182
with three to five years elsewhere. This difference is also illustrated in Table 2, which shows the median fallow period (item 8), although the figures are based on too few gardens to be conclusive. Many farmers interviewed in Ha'apai claimed to be using shorter fallows than when they began

TABLE 1. POPULATION DENSITIES, 1931 AND 1966 161
(PER SQUARE MILE) 162

DISTRICT	1931	1966
Ha'apai*	316	517
Western Tongatapu**	248	540
Remainder of Tongatapu***	85	335

* Excluding Tofua, Kao and the unsettled islands.

** Including the villages from Ha'atafu to Fo'ui.

*** Excluding Nuku'alofa and the surrounding settlements of Hofoa, Puke, Sia'atoutai, Fatai, Haveluloto and Tofoa, and their lands. This has been done to remove the population of the urban centre of Nuku'alofa, the national capital, from the calculation of population density. [128]

[p. 60-8]

population growth over the last three decades, and 241
consequently the rate of increase in the intensity of
cropping, has probably been more rapid than the 182
rate at which Tongan farmers are willing to change
their established methods and particularly their
habits of work. By contrast, the more elaborate [171]
techniques used by the New Guinea agriculturalists
discussed by Brookfield (1962) and Clarke (1966)
appear to have been developed over a lengthy period
under conditions of slow population growth. Fur- 242
thermore, in the past the Department of Agriculture 654
has done very little experimental or extension work
on the problem of maintaining soil fertility under 182
food cropping, and most of the technical advice 241
given has concerned cash crops. Consequently many
Tongan farmers have little knowledge of the techniques that could be adopted, and unlike shifting
cultivators in some other areas they have had no
contact with peoples practising more advanced
systems of subsistence agriculture.[2] They also have 241
no tradition of livestock farming (except with pigs) 231
which could be developed into an intensive farming
system based on manuring, as is found in parts of 182
Africa.

The relevance of Boserup's thesis to the process 128 ●
of agricultural change in Tonga may now be briefly
reviewed. While none of the material presented 114
above conflicts with her thesis that the intensifica-
tion of traditional agricultural systems occurs only 241
when forced by population pressure, for it is evident 182
that differences in the intensity of cropping in Tonga
are related to differences in population density
rather than to differences in land quality, it does
suggest some qualifications to her argument.

Firstly, not all of the adaptations made by Tongan 241
farmers to population growth have involved in-
creases in labour input, for one response has been 182
to adopt a high yielding and easily cultivated crop
such as cassava.[3] Secondly, a good deal of intensification seems possible without necessitating basic
changes in the agricultural system. Short-term in-

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[2] Compare the comments by Boserup (1965, pp.41, 64).

[3] On the other hand more labour is now required for clearing and weeding gardens and yields have probably been affected by the decline in soil fertility, but whether the net result has been a decline in output per man-hour is impossible to determine in the absence of data on labour inputs and production. [433]

[p.63-B]

ture as of the pressures of population growth, and even in a still partly traditional agricultural system population growth may thus cease to be the critical determinant of agricultural change. 000

ACKNOWLEDGEMENTS

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44: Posesi Fanua G,I-5 (no date) 1975
OU9 Tonga OU9

Intro

114 538 128 Tupou Posesi Fanua has achieved a real honor by writing the first book of Tongan folk tales in two languages. Her *fananga* – or, as she describes them, "stories used to lull me to sleep," were told to her by her grandmother. Now a grandmother herself, Tupou re-tells for us these tales she heard as a child.

128 "My only request," she wrote when discussing *Po Fananga*, "is that the book should be printed in Tongan and English. You people have so much literature, while our own people have so little."

114 Tofua Press is proud to be the first to publish this Tongan woman's folk tales. True – the early explorers, beachcombers and missionaries who went to Tonga put some of the exciting folk lore into books and magazines. Ethnologists from the Bernice P. Bishop Museum visited the Kingdom and produced scholarly and voluminous works on Tongan literature. But the majority of these publications are to be found in libraries and museums outside of Tonga and are, for the most part, not available to Tongans in their homes and schools.

Today, the *Pacific Islands Monthly*, in a section called "Mana" edited by Marjorie Crocombe, is publishing the works of modern writers from many islands. Tofua Press wishes to join them in becoming an outlet for creative self-expression and offers *Po Fananga* as its first attempt.

[p.7-A]

44: Posesi Fanua G,I-5 (no date) 1975
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duction

114 We are fortunate to have an author gifted in both
languages. An intelligent, versatile, keen-witted woman,
114 Tupou Posesi brings much to her job as Researcher of the
814 Tonga Traditions Committee. At the Palace Office where
she works, she greets newcomers who come with impossible requests; anthropologists are always at her door. When a movie maker from England sent camera men to the islands to take pictures of dancing, *tapa* making and the like, Tupou made arrangements for them; when an archival bureau in Fiji wanted sections of an early Tongan newspaper translated in three weeks, Tupou handled it; when the University of the South Pacific Centre at Nuku'alofa needed someone to lecture on Tongan family customs, Tupou was called upon – and her spontaneous performance was enthralling.

Then when we were in Tonga in late 1973 asking Tupou's advice and assistance in obtaining photographs for *Tonga Pictorial,* she told us, "Next year I am going to New Zealand. I am going to work with Garth Rogers in the Anthropology Department at the University of Auckland, translating and taping some of my research work."

128 "But Tupou, when are you going to write that book you promised us?" we asked.

"I'll send you a manuscript," she replied.

[p. 7-B]

128 Then came the happy surprise. After a long silence from Auckland, she began sending us parts of *Po Fananga* – and we were delighted.

"You are to please yourself," she wrote, "how you place these stories and edit them . . . The translation, as I have said, is rough, but it was intentionally meant to be so. A literal translation would be a bit dry for the appetites of the English-speaking reader."

Back in Tonga later, Tupou sent us this note: "Just a few lines to let you know that the rest of *Po Fananga* will be coming in a few days. I am also enclosing a creation of mine which is called "Rainbow and her Daughter." And so we have eleven traditional Tongan folk tales, plus one of Tupou's own.

128 Thus, Tofua Press received *Po Fananga.* We were lucky
114 enough to have Nick Rott, who has his Master's Degree in
Fine Arts, to do the illustrations for this book. Having
lived and taught in Tonga, Nick and his wife, Gerry, had
been special fans at Tupou's fascinating story-telling
114 sessions. And Tupou is a born story-teller. She knows a
538 tale behind any person or place that comes into the conversation, and her eyes twinkle with merriment as she
tells it.

114 In one of her tales, you will read about a handsome
youth who knew the location of his island in the dark by
[502] the mere feel of the ocean from the boat. Tupou has, in
her family line a number of generations removed, the

44: Posesi Fanua G,I-5 (no date) 1975
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Facts to know ab

128 These folk tales are, for the most part, stories of adventure which reflect certain aspects of Tonga's culture and philosophy of life. More importantly, they are a part of Tongan oral traditions.

A person not familiar with the Kingdom of Tonga might have difficulty relating to these folk tales and understanding their cultural references. The following information is therefore offered to help acquaint the reader with some necessary background.

538 Tongans have always held their history in high esteem, and indeed, Tonga has an abundance of rich traditions and fascinating history. Centuries before there was a written language and thus a method of recording valuable information for posterity, oral traditions had become an essential part of Tongan society. By the careful memorization of lengthy geneologies, folk tales, heroic sagas and narratives of past events, Tongan history was preserved and transmitted down through the ages.

643 Ancient Tongan society was highly stratified, with
565 the *Tu'i Tonga* as supreme ruler, and under him, the
chiefs and nobles, then the *matāpule* (attendants), and
finally, at the bottom of the class system, the common-
643 ers. More than a King, the *Tu'i Tonga* was both tem-
poral and spiritual leader, with absolute control over

[p. 9-A]

45: Aoyagi E-5 (1962-1963) 1966 OU9 Tonga OU9
Nukuleka

are inshore, if he should step out of his house, the *matai* will get away. 622
Formerly, the head of the *matai* was always offered to Leka. 226

Other *matapule* and *ofisa kolo*

Besides Leka, there are two *matapule*, Mautea and Ikaholi, in this 565 621
village. Mautea was appointed to the position of a *matapule* of the 644
Queen by one of his relations, Lauaki, in 1950, who was the chief 624
matapule of the Queen. Mautea thinks that his duty as a *matapule* is to
participate in royal funerals. He also attends the kava ceremony held
by the Queen, but is not aware of the order of drinking kava. Ikaholi, 565
succeeding to his grandfather, has become a *matapule* of a noble at 624
Mu'a. He is quite young and has no knowledge about the duty of a
matapule.

Ofisa kolo, town officer, was a man of fifty eight years old at the 624
times of this study. He held this position from 1930 to 1943 and from 644
1958 on. The premier appoints the officer and the Government pays him [465]
a small amount of money. As a representative of the villagers as well as [655]
an agent of the Government, he reports every day within the village, takes
charge of the wooden cases for bananas which are brought in by the
Tongan Produce Board, and announces the Government's intentions at
the *fono*, village council. According to him, the qualification of town [554]
officer is to belong to a good family, to have never done wrong, to have
his own *api tukuhau* and so on. Since the term of town officer is unlimited,
one remains in office usually until death or retirement. The *ofisa*
kolo of this village has several times requested the Premier to replace him
for reasons of health, but he still retains his office. There seems to be 621
little difference between thse men and ordinary villagers in economic life or 554
status. The size of the *api tukuhau* held by them is about the same as 511
others and the crop produced on it is mostly consumed by their families.

II FAMILY

Household Composition

There are 35 households in this village. We may exclude two house- 592
holds of the stewards of the Free Wesleyan Church and the Free Church [621]
of Tonga from the village households in what follows. The household is
a unit of everyday living. Its members usually share a common *fale mohe* [342]
(sleeping room), *fale kuki* (kitchen), *fale kaukau* (bath room), and *fale*
malolo (rest room). Some of the households do not have *fale kaukau*
or *fale malolo*. The location of households is sketched in Fig. 1.(8) The [128]
size of the household varies, with an average of 6.15 persons.

TABLE 1. THE HOUSEHOLD SIZE AND GENERATIONAL COMPOSITION 592 621

No. of Persons	2	3	4	5	6	7	8	9	10	13	Total
1 Generation	1	1									2
2 Generations	1	5	3	1	2	3	4	3	1		23
3 Generations					3	2	1		1	1	8

---

(8) The household number (1-34) is given to each according to the ecological arrangement of the households. It is interchangeably used for indicating its household head. European style houses, made of wood, are rectangular. Traditional Tongan style houses are thatched with coconut leaves. Semi-traditional Tongan style houses have wooden walls and tin roofs. Fijian style houses, made of coconut leaves, are rectangular. [342]

17

592 594 596 D. 1 household that contains A plus wife's children who were born in her previous marriage and husband's father's second wife with her son.

597 There are only four adopted children. In one case a chid was adopted because the foster parents who had an only child wanted more. In another case a girl was adopted by her mother's sister because her own children have already grown up. Two other little children whose parents had been divorced were taken over by their grandparents.

Fission of the Household

592 591 [128] Since most of the households are based on a nuclear family, the development of a household seems to be a kind of cycle. After children grow up, they depart from their parents' household to form their own. Table 2 shows the correlation between the mother's age and the number of children living with their parents. Adopted children are included in number.

TABLE 2 — MOTHER'S AGE AND NUMBER OF CHILDREN STAYING WITH THEIR PARENTS

Mother's Age	No. of Children										
	0	1	2	3	4	5	6	7	8	9	10
16 - 20		1	1								
21 - 25	2	1	3	2							
26 - 30		2	1	1	1	2					
31 - 35					1		1	1			
36 - 40	1	1		1			1	2	1		1
41 - 45			2			1					
46 - 50			1								
51 - 55			1								
56 - 60		1		1							

When the wife's age is about from thirty six to forty years old, the number of children reaches the maximum. Then the fact that grown-up sons and daughters start separating from their home, reduces the size of the nuclear family in question. We shall examine here six examples in which we see some of the actual processes in forming new households.

14 The first son of No. 5 (thirty years old in 1962):

In 1946 he received from the Government *api tukuhau* of 8¼ acres and *api kolo* both of which had been vacant. He built a house by himself in this *api kolo* and has lived there since 1950. He parted from his parents before his marriage.

10 The third son of No. 5 (twenty seven years old in 1962):

Having no *api tukuhau*, he worked on the land of his father's mother's sister's son (22). He asked the Government to allot him the *api tukuhau* of his mother's deceased brother. In 1957 his first son was born, and in the next year he built a house in a vacant *api kolo* which has not yet been recognised as his own.

592
888
591

Table 3 — Children who stay and support their parents and number of households

1st son	2	(12, 32)
1st daughter	2	(21, 22)
2nd son	2	(5, 9)
4th son	1	(20)
Step-son	1	(34)

12 and 32 are the only boys of the parents. In case of 5, 9, 21 and 22 the first son has his own household in this village, and in case of 20 [128] three of his elder brothers live in the next village. The next table traces the present whereabouts of married sons of the eleven households including eight examples in table 3.

Table 4 — Present Whereabouts of Married Sons and Number of Households

	Living in another village	Keeping an independent household in this village	Staying with his parents	Unknown
1st son	8	4	2	1
2nd son	4	1	2	1

[591] Judging from table 3 and 4, it may be generalised that the grown-up children successively start to form their own households and a son, or sometimes a daughter, depending upon the circumstances, may be selected among younger siblings to remain at home, forming a patrilocal, or matrilocal in a few instances, extended family (according to G. P. Murdock's definition). It may be the youngest child, but not always. On the other hand, the old parents, especially widow or widower, move around at will. For example, a women over seventy years of age usually resides at 34 with the son of her husband with his previous wife, but stays also at 1 with the son of her husband's brother, and also visits Nuku'alofa quite often.

Discontinuity of the Households

592
428 The Tongan law prescribes that *api tukuhau* and *api kolo* should be inherited by the eldest son of the later holder. In other words the household is to continue by means of the patriocal extended family backed with the inheritance of the land, strictly speaking, the inheritance of the usufruct 592 of the land. But in reality one tends to set up one's own household and can do so very easily, as mentioned above. People do not seem to be intent on continuing the household. A household will terminate when an old couple have no son or daughter to stay with, or when the members of a family break up on the divorce of the parents, or when an old widow [551 428] or widower shifts the residence to one of the children. The fact that there is no important property to be inherited and no family name among

Man C: According to this informant, there is no difference between *famili* 612 and *kainga*. He traced as those two group's members every person who is consanguineally related to him through father and mother including far relations such as his mother's sister's daughter's son and his brother's daughter's son. He clearly distinguishes consanguineal relatives from affinal relatives who are defined by him as *mali pe*, married only. The only exception is his own wife who is included in his *famili* upon her marriage.

If we ask particularly about the difference between *famili* and *kainga*, most of the informants explain that *famili* includes close relations and *kainga* remote relations. But the distinction of the two terms is not always clear, for there are not a few cases where one may be called *famili* of so and so on some occasions, *kainga* on other occasions by the same informant. The truth is that, both *famili* and *kainga* seem to be used in the same way which traces bilaterally all the consanguineal kinsmen. I will use the word here in this report as mentioned by Man C. It may be defined altogether as personal kindred.

Ulu i Famili

The head of *famili* is called *ulu i famili*. Gifford mentions the word [601] *ulu motua* as the head of the family. The functional role of *ulu i famili* is observed only on ceremonial occasions of weddings and funerals. At a wedding, what the *ulu i famili* is mainly concerned with is how to divide food among the people invited to a wedding. However, he does not demur at the fitness of the partner or the date of wedding. At a funeral, the *ulu i famili* gives his instruction about the allotment of the work, the feast and so on.

As *famili* is personal kindred, it is 'ego-oriented' and differs for each person except full siblings. If *ulu i famili* were the head of a *famili* of this type, that is personal kindred, he would not function effectively at all as the *famili* concerned would depend on the position of ego. An *ulu i famili* can only be appointed for each individual at the centre.

When we ask "Who is your *ulu i famili?*" villagers name an old man on the paternal side of the *famili*. When a son or a daughter marries, his or her father will consult with his *ulu i famili*. Children are included in a *famili* of their mother, but they are not subject to the *ulu i famili* to whom their mother belongs. They belong to their father's *ulu i famili*. So the *famili* itself is 'ego-oriented' but, one may say, those who belong to a certain *ulu i famili* can be determined only by considering the particular nuclear family concerned. As a matter of convenience in distinguishing [128] these two forms of kin groups, the family group which belong to one *ulu i famili* will be called the *famili* organisation in this paper.

Famili organisation in Nukuleka

In Nukuleka, 5, named Pualiki, has the largest number of *famili* and 612
is somehow related to the families of 24 households out of 33. According 621
to 5, he is the *ulu i famili* of nuclear families of 15 households. The following list shows his *famili* organisation and the relationship with them. (see Fig. 2).

612
621
[601]

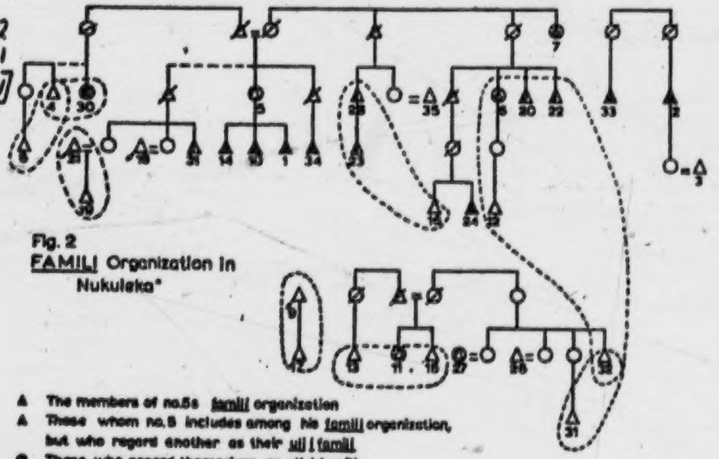

Fig. 2
FAMILI Organization in Nukuleka*

▲ The members of no.5s famili organization
▲ Those whom no.5 includes among his famili organization, but who regard another as their uli i famili
● Those who regard themselves as uli i famili
▲ Those whose uli i famili live outside of the village.
▲ Deceased
( ) Persons whose uli i famili is the same
┌--┐ Children of the same father but different mother
┌--┐ Children of the same mother but a different father

● [128] *The figure is simplified by showing only the heads of the nuclear families and the persons who are necessary for tracing the relationship.

14 is 5's first son; 10 is 5's third son; 1 is 5's fourth son; 34 is 5's full brother's son; 31 is 5's half brother's son; 30 is 5's father's sister's son; 6 is 5's mother's sister's son; 20 is 5's mother's sister's son; 22 is 5's mother's sister's son; 24 is 5's mother's sister's son's daughter's son; 28 is 5's brother's son; 23 is 28's son; 7 is 5's mother's brother; in the case of 2 and 33 the relationship cannot be traced from the figure. Although they themselves do not know it exactly, they think they are *famili* of 5.

As shown in fig. 2, Pualiki's *famili* organisation extends both to his father's and his mother's side, excluding 18, 21 and 35 whose wives are related to him. 30 and 6, each related to him through a female member, are considered to be members of his *famili* organisation. Although Pualiki says that he is the *ulu i famili* of all these fifteen families, only seven regard him as their *ulu i famili;* the other eight regard another person or themselves as *ulu i famili.*

612
621
128
The *famili* organisation of this village is shown in the following table. As in Pualiki's case those whom one *ulu i famili* regards as his *famili* members, are not the same as those who think him their *ulu i famili.* So, the families listed below are not from the viewpoint of *ulu i famili*, but from the viewpoint of individual families.

612
621
Even though 7 and 27 declare that they were *ulu i famili* of so and so families, none of them think they belong to either. The persons who regard themselves as *ulu i famili* are always over fifty years old. Generally speaking, an *ulu i famili* is an old man of the father's side of one's *famili.*

C

45: Aoyagi E-5 (1962-1963) 1966 OU9 Tonga OU9
Nukuleka

KINSHIP AND BEHAVIOUR IN A TONGAN VILLAGE

578 While I was staying in the village, a quarrel occurred between a man
605 and his classificatory sister who were the second cousins. The reason for
602 their quarrel is as follows: Two girls (H and V) in the village had the
601 same boy friend. The woman (A) took the side of V, although her
brother's (B) wife (C) took the side of H, and there was a dispute between them. Then A's adopted son (D) of six years old hit B's son of
[683] two years old. Getting angry, B hit D back. So A went to law with B,
and B sued D for his violence. Since then, A, B and C, who are next
door neighbours, have remained unfriendly.

601
602 There is much more emphasis on correct behaviour in the case of a
605 real and direct relationship than a classificatory one. For example, the
593 brother-sister *tapu* is most strictly observed, but between cousins (classi-
[784] ficatory brother and sister) it is sometimes relaxed. Sometimes cousins
joke and laugh in loud voices in a way that is never found in the real
604 sibling relationship. And one dares not employ his *ilamutu* privilege
602 towards the classificatory *fa'e tangata* so freely as towards his real
601 mother's brother.

● 128 Next we shall examine a few practices in connection with kinship behaviour.

The Place to Sleep

593 It is said that the brother and the sister do not live usually in the
592 same house after ten or twelve years of age. In this village there are only
[341] two wooden houses having more than two rooms and the remainder are
the houses, each with only one room. A boy who reaches about the age
513 of ten is supposed either to build a hut or find some other place to sleep.
592 Out of 33 households ten have boys and girls who are older than ten
593 years. These ten households are grouped into four according to the place where the boys sleep.

(a) in the main *fale mohe* with sisters — — —	3 households
(b) in another *fale. mohe* — — — — —	5 households
(c) in *fale kai* — — — — — —	1 household
(d) some brothers in another *fale mohe* but others with sisters — — — — — — —	1 household

One of (a) households has a large wooden house, permitting the boy to sleep in a separate room from his sister, so that this case may be added to (b).

Out of 19 boys 14 sleep apart from their sisters. Sometimes a little boy of six years old sleeps with his elder brothers, thus separated from his sister and parents. Among five boys who share the room with the sisters, three are eleven years old or over. The oldest boy, the second son of 9, is already married and lives with his father and sister of twelve years of age in his fatherm's house. A fourteen years old boy is the eighth son of 5; his elder brothers are all married. He stays with his parents and his sister of thirteen years of age in the same house. An eleven year old boy is the first son of 3 who sleeps with his parents and elder sister of twelve years old. So the age of girls sleeping in the same room with a brother

The father is privileged to choose the name giver for his children. 553 The first born baby, regardless of sex, is always named by the father's 602 relations, with a special preference to the father's sister, irrespective of 593 residence. Since the second and the subsequent children are inferior in 604 birth significanc to the first baby, the father may then grant a maternal relative's desire to name a child.

VII — Weddings and Funerals

The rank of individuals among *famili* is emphasised on ceremonial 612 occasions such as weddings[21] and funerals. I will describe these cere- 554 monial procedures from the view-point of kinship behaviour. 585 764

A boy tells his love to a girl, and if she agrees, he will ask his parents' 128 consent. If they do, he or his father goes to an old man closely related to him to ask his favour of becoming *matapule*. 584 Then he with the boy makes a formal visit, *faitohi*, to the girl's house, taking some *kava teletele* [276] (big roots of *kava*). [574] On *faitohi*, *matapule* tells her father that the boy eagerly wishes to marry the girl. When her father is ready to accept their proposal, he consults with her elder brother or *ulu i famili* as soon as possible. And if he agrees to the matter (and generally the *ulu i famili* will not object), the people concerned confirm the girl's will. The marriage is now arranged. The *kava teletele* brought by the *matapule* is [276] prepared, around which the *matapule* and the girl's parents sit to drink. [574] The first cup of kava is taken to the *ulu i famili* on the girl's side, the second to the *matapule*, the third to anyone present. A few weeks later after *faitohi* the wedding takes plaec.

In the afternoon of the day before the wedding-day, the boy's father 585 cooks *umu* and roast pigs to be given to the girl's family. [252] At the sunset, the girl dresses up in formal wear such as *fihu*, *kei* (both, a kind of mat) [292] and *ngatu* (bark cloth). [352] Inside her house is nicely arranged, bark cloths and mats over the floor. [292] Then the boy in formal dress comes with his followers. The *fakalelea mali* begins now. The bride and the groom sit respectively on the laps of their *fa'e tangata*. 585 Sometimes *fakafeangai*, attendants, of the bride and the groom may sit beside them. 276 On this occasion the first *kava* cup is taken by the bride,[22] then by the groom. 574 If they do not want to drink, the *fakafeangai* may drink it in place of them. Drinking *kava*, and eating *fono* (*kava* relish, such as bread, pork, [262] and puddings of various kinds, etc.), they spend the time cheerfully chatting until next morning. When *faikava* is nearly over, the bridegroom and his followers take off their clothes to give them to the bride and her family. Through excess of joy, sometimes, they strip themselves of even their trousers and shirts. The bride's people bring bark cloths and clothes to cover them. The bride also takes off her dress to give to the partner.

On the morning of the wedding, they go to the town for registration. 585 Usually they hire two motor cars which they decorate with *kie*. The bride and the bridegroom ride separately with each of their *fa'e tangata*. Other the groups and activities under consideration. This follows Swartz's usage (1968: 1) where he distinguishes 121 between 'local politics' and 'local-level politics'.

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[21] Collocott 1923: 221-5., Beaglehole 1941: 91-98., Koch 1955: 75-81.

[22] Collocott writes that the bride who is the chief of this occasion takes the third cup, that is the chief cup. A middle-aged woman told me that the first cup was the chief one.

As we have seen, the Tongan data direct attention to certain general issues in the anthropological analysis of intra-societal variability. In the final chapter of the [128] dissertation I consider these data in cross-cultural perspective. At this point, my concern is with the methodological problems involved in analyzing the Tongan data. These problems have been approached most instructively, in my view, under the heading of the question of 'loose structure', and in some of the treatment of 'optative' forms of social structure.

The term 'loose structure' was introduced into the anthropological literature by John Embree (1950), when he characterized Thailand as having a 'loosely structured social system'. Embree was concerned with

> . . . the question of relative integration of a culture in terms of a loosely as against closely woven social structure; loosely integrated here signifying a culture in which considerable variation in individual behavior is sanctioned . . . [in contrast with] more tightly woven cultures--that is, cultures whose patterns are clearly marked and which emphasize the importance of observing reciprocal rights and duties in various situations to a greater degree than is to be found among the Thai (1950: 182).

Although various writers have pointed out that Embree's concept was loosely defined, others have made serious efforts to develop the concept. Thus, in one of the first papers not allow choice in affiliation as regards membership through male and female, and those which do" (1957: 4). 121

Terms like 'optative' and 'optation' characterize flexibility in affiliation and changeability in membership not only with reference to non-unilinear descent groups. Van Velsen, who studied optative elements of structure in a matrilineal society, defines what he calls the 'process of optation' in the following terms:

> Selection by an individual in any one situation from a variety of possible relationships . . . those relationships which they consider will serve their aims better. The particular relationships and norms selected are likely to vary in regard to the same individuals from one situation to another and in regard to similar situations from one individual to another (1967: 142-143).

The variability that Van Velsen speaks of is similar to what has been characterized in the literature on Thailand as the 'looseness' of 'loose structure'. Clearly, the process of optation does not apply only to matters of descent. There are studies of social structure that focus on optative elements in matters of adoption (Howard 1970, Keesing 1970, Monberg 1970), residence (Goodenough 1956, Leach 1961, Fehrson 1954), marriage (Horowitz 1967, Leach 1951, 1961, Ogan 1966) and divorce (Gibbs 1963), as well as optative elements in the formation of certain short-lived single-purpose 'activity groups' (Howard 1963, Keesing 1967). Much of this dissertation is concerned with optative [128] elements of social structure at the local level of Tongan

society, including matters of household composition, kin- 121
group affiliation, denominational affiliation, residence, 128
and participation in various local activities.

Synopsis

Following this introductory chapter comes a chapter 128
dealing with certain aspects of the national context of local organization in Tonga. The chapter deals mainly with the fact of increasing population pressure and with the statutory basis of the Tongan system of land tenure, since it is my argument in later chapters that access to land is a major limiting factor that may critically affect the alternatives available to the individual in Tonga. The chapter also includes a discussion of some of the criteria of variation and the range of diversity among Tongan villages, providing a comparative perspective for viewing the particular village in which most of the detailed ethnographic data were collected.

In Chapter III the discussion becomes centered on the village of Motulahi and on people and events associated with the village. The events span a period of about seventy years and illuminate the relationship between the formal features of the system of land tenure and some of the processes involved in acquiring access to land. We also see how this is affected by increasing population and by inter-island migration. The chapter includes a demo-

graphic description of the village population. It is here, 128
in discussing the difficulties involved in enumerating the population of Motulahi, that we are first confronted with some of the implications of the fact that diversity and changeability are characteristic features of local organization in Tonga.

The next two chapters are concerned with variability in local organization, at the household level of organization (Chapter IV) and beyond the household level (Chapter V). The materials in these two chapters are based mainly on data from Motulahi, although they are concerned with processes and activities that are found throughout Tonga. Chapter IV focuses on the determinants of household composition. It will be seen that, while variability in household composition is affected by considerations of status, it is determined mainly by economic variables, including the question of access to land. Consideration of local-level economic and political stratagems is carried on into Chapter V. The chapter deals with the ways in which people can vary and manipulate their memberships in kin groups, church groups, and voluntary associations. These groups are the arena for the conduct of status-striving activities at the local level of Tongan society. The flexibility of stratagems and emphasis on individual decision-making that is so characteristic of Tongan social organization and which has been indicated at earlier points in the dissertation is particularly evident in this chapter. 128

In Chapter VI I return to consideration of the broader context of local organization in Tonga, discussing connections between local units and between the local level and the national level, with special attention to the problem of how the Tongan village is best viewed as a social unit. This chapter presents the ethnographic basis for the argument in the following chapter that the variability and flexibility that characterize the organization of Tongan society at the local level can be understood as adaptive mechanisms for distributing persons and allocating resources in the absence of directives from above.

The final chapter presents a summary of the thesis set out in the preceding account of social organization in Tongan society, and then the final section considers some of the Tongan data in broader theoretical and cross-cultural perspective.

46: Decktor Korn E-5 (1969-1970) 1978 OU9 Tonga OU9
Tongatapu
Motulahi

CHAPTER II

THE NATIONAL SETTING

Since Tonga is little known, the national context of the data presented in this dissertation must be indicated. It is my argument in later chapters that access to land is a limiting factor that may critically affect the range of alternatives available to the individual. Accordingly, this chapter describes the contemporary situation of increasing population and growing shortage of land, followed by an historical account of the system of land tenure. The chapter also provides a further perspective on the particular village in which research was based through a review of criteria of differentiation among Tongan villages. 121 128

Geography and Natural Environment

The islands of Tonga lie east of Fiji and south of Samoa in the southwest Pacific, between 15° and 23.5° South latitude and 173° to 177° West longitude (see Map 1). The northernmost island of Niuafo'ou is over 500 miles from the southernmost island, Ata. There are about 150 named islands, but only thirty-six of the islands were inhabited at the time of the last census, held in 1966 (Fiefia 1968: 38). 131 101 131 162 shortage. Thus, McArthur has written:

> The Tongan government is likely to be in difficulties before 1971 if every male aged 16 years or more pays his tax and claims his 8¼ acres of land because . . . there will not then be enough land in the whole Kingdom for much more than an average of 6½ acres per ⌊eligible⌋ male (1968, 97). 423 162

McArthur's figures refer to Tonga's total land area, not just to the land available for agricultural allotments. In terms of cultivable land, there was only enough for 4.6 acres per eligible male at the time of the census of 1966; the amount of land required exceeded the amount available by 79%.[1] It could be argued that only a man who is an adult and who is engaged in farming needs an agricultural allotment of his own. In that case, given the extent of [134] cultivable land (92,447 acres) and the number of men aged twenty or more enumerated in the census as being engaged primarily in farming for household consumption and export, in 1966 there was only enough land to provide each man with an allotment of just over 8 acres.

The statutory basis of the system of land tenure is 423 set out next. The operation of the system at the local [128] level--particularly the means of gaining access to land--are discussed in later chapters. The point emphasized here [162]

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[1] In fact, according to the census of 1966, only 41.5% of all eligible males had an agricultural allotment (see Table 3). The apparent inconsistency between the figure of 41.5% and the theoretical possibility of 56% is [565] accounted for by the fact that there are landed chiefs who have holdings of considerably more than 8¼ acres.

46: Decktor Korn E-5 (1969-1970) 1978 OU9 Tonga OU9
Tongatapu
Motulahi

Summary

This chapter has presented the background information essential for understanding the national context of local-level processes. It is clear from the materials presented in this chapter that there is considerable diversity among Tongan villages relating to the basic facts of the distribution of the population. It is therefore worth emphasizing that there is a good deal of population movement in Tonga, as we have seen in this chapter and will have reason to note in the chapters that follow, and this tends to mitigate the differentiating effects of the differences in village size and location. 128 [182] [166] [182]

The chapter first describes the layout and look of the village, followed by an account of the history of settlement at Motulahi and a brief demographic description of the people resident in the village at the time of my fieldwork. 128 It will be seen that the effects of increasing population and inter-island migration have been marked in Motulahi for more than thirty years and have contributed to the diversity of the present population. [161] [164] Materials presented in this chapter also illustrate something of the possible range of variation in the relationship between a Tongan noble and his people, particularly as this relationship is affected by population pressure and other developments in Tonga over the past few decades.[1]

The Look of the Village

Motulahi is located about six miles from Nuku'alofa. 361 [101] [131] The residential part of the village lies on either side of a mile-long section of the main road running from town towards the eastern end of the island. Immediately to the north is the marshy area that borders the lagoon, while on the other side agricultural allotments run about a mile and a half to the sea (see Map 4). As in all Tongan villages, **kolo** (the residential part of the village) is distinct from **'uta** (the land divided into agricultural allotments). In

[TEXT CONTINUED ON PAGE 66]

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[1] For further description of relations between a noble and his people, see Marcus (1976) and Rogers (1968).

000lantern or a Coleman lamp.

361 In addition to town allotments, the residential
[362] sector of the village includes three churches, a government-
[312] owned concrete water tank for collecting rainwater, and a
malae or 'village green'. The malae is the large open
[366] space between the noble's house and the main road. Except
[368] for the churches, the only non-residential structures in
[743] the village are six privately-owned shops (each set on a
corner of the owner's 'api), four privately-owned sheds,
and an open-sided thatched structure at the side of the
malae, which serves as a Baby Clinic when the visiting
[871] nurse makes her bi-weekly visit. Motulahi is also served
[764] by four schools and three burial sites or cemetries, all
[368] of which lie adjacent to or near the boundary of the
[366] residential sector. In its lack of offices or coffee-shops,
[369] Motulahi is typical of Tongan villages. The many churches
and nearby schools are also typical.

History of Settlement at Motulahi

128 The following data, which portray the history of
121 settlement at Motulahi, serve to flesh out the national
statistics relating to processes of migration to Tongatapu.
These materials also indicate something of the operation
of the system of land tenure and particularly how operation
of the system is an integral part of the relationship
between the tofia owner and the people of his village.

621 shortage of land.
423 The conclusion to be drawn from this is that
contemporary practices in Motulahi in relation to the
organization of access to land may be indicative of what
will be seen elsewhere on Tongatapu as the shortage of land
becomes more widespread. On the other hand, the Motulahi
experience of peaceable adaptation to land shortage does
not necessarily indicate what may eventually happen once
there is acute land shortage throughout the country and
nowhere to drain off the excess population.

The Demography of Motulahi

128 Before proceeding to examination of contemporary
social organization in Motulahi, something should be said
about the demographic characteristics of the population.
Immediately, one confronts the fact of population movement
and the difficulty of making a summary statement of who the
125 people of any village in Tonga are. My demographic survey
of the village was part of a detailed house-to-house
survey conducted intermitently, beginning early in January
1970 and continuing at intervals until about the middle of
125 May. By the end of that period, some of the people who
166 were enumerated earlier in the survey were no longer living
in Motulahi or were still in the village but living in some
other household, while others came to live in Motulahi only
after I had already surveyed the household in which they

125 lived. Demographers commonly deal with these fluctuations
166 by arbitrarily fixing on a particular date and enumerating
the population present at that date. This suits their
purpose of enumeration, but it is an intolerably arbitrary
solution to the problem of ethnographic description (Colson
121 1954, Carroll 1975). In considering how to deal with this,
621 I realized that population flux is not a difficulty that
gets in the way of perceiving the demographic characteristics
of the village but, instead, is a vital element of
[128] proper description of local organization in Tonga. This
view is expanded and explored in the next chapter, in the
621 analysis of household composition. For the present purpose
125 of presenting a demographic profile of the village, I am
taking the population of Motulahi to be the sum of the
people who were enumerated in the course of the house-to-house
survey. People not living in a household at the time
it was surveyed are not included here; to include them
would inflate the population total and distort the age-sex
proportions, since young adults are more mobile residentially
than other sectors of the population.

162 According to this enumeration, Motulahi had 1,192
621 inhabitants in the early part of 1970, of whom 617 were
male and 575 were female (see Table 7). A percentage
breakdown of village population according to ten-year age
categories indicates that more than half the population

[TEXT CONTINUED ON PAGE 92]

162 university-entrance exams, or are those attending the
621 Tongan Teachers' Training College.) On the other hand,
[877] as Table 9 indicates, very few Tongans are married before
[873] the age of twenty, though most are married by the time
[874] [582] they are thirty (women usually in their early twenties and
men a few years later).

162 Age at marriage among the population of Motulahi
621 parallels the national picture: all but two of those under
582 age twenty were never married. (In what follows
in later chapters, these two are classed as adults for
purposes of enumeration.) However, beyond determining
who has never been married--which is a matter of fairly
reliable public knowledge--describing the marital status
of the population is difficult for the ethnographer. One
can easily tell whether a man and woman are living together,
but one cannot as readily know whether or not they are
legally married. On the other hand, if a married couple
is living apart--which they may be doing for a number of
reasons (see next chapter)--one cannot rely on the veracity
of what one is told about the status of the marriage.
[128] A detailed analysis of marital status, therefore, cannot
[592] be given. In the course of investigating household
organization, however, I learned that it may be crucial
whether or not there is a co-resident 'spouse', regardless
[592] of the legal status of the union. Accordingly, Table 10
differentiates among the adults of Motulahi according to

[TEXT CONTINUED ON PAGE 97]

162 their 'marital'-residential status (i.e., whether they are
621 582 living in a couple relationship).

592 The difficulty of describing marital status is simple
162 compared to the problem of describing residential movement.
621 591 Tongans are as likely as not to have been raised somewhere
166 other than the village where they are born, are likely to have moved back and forth among different villages, and may speak of themselves as not really being of or from the village in which they have maintained residence for many years. It is therefore difficult to select ethnographically meaningful categories for differentiating among the people of Motulahi with regard to their places of origin or
[128] length of residence in Motulahi. As we see in the next chapter, the elements that make such enumeration difficult are best understood in the context of the organization of household composition.

Summary

621 Materials presented in this chapter show that the observed configuration of any one village reflects its geographical position and the influence of local personalities as well as the effects of supralocal and historical processes. This local configuration, in turn, constitutes much of the setting within which people who live in the
[128] village must operate. Elements of local organization and the local-level adaptations of the people of Motulahi are

621 the focus of the next three chapters. It should be noted
128 that, while these chapters are based primarily on data from Motulahi, they deal with processes and activities that create the fabric of local organization throughout Tongan society.

CHAPTER IV

THE HOUSEHOLD LEVEL OF ORGANIZATION

114 The ethnographies of Oceanic societies commonly note that the composition of a household may vary from time to [592] time. This observation is also true for Tonga. The diversity and changeable nature of the composition of household groups in Oceania have received little attention from anthropologists. These phenomena are usually mentioned in the context of studies of the local descent groups that are the typical land-holding groups in Oceania, or treated as secondary aspects of ecological adaptation. 128 A close study of household composition, however, promises to be particularly revealing of elements of decision and choice in the organization of Tongan society at the local level.[1] This chapter analyzes Tongan household structure in terms of a decision-making framework.

121 It will be argued that the observed range of variation in household composition in Motulahi is a reflection of the different ways of satisfying the material and social

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[1] The productiveness of this approach was first demonstrated by Goodenough (1956) and received further exposition in Leach (1961). Also see Buchler and Selby (1968: 49-52).

121 demands upon the persons who make up each household. The first part of the chapter describes the diversity of household types in Motulahi and the changeability of membership, delineating the problem of variability in household [128] structure. The remainder of the chapter presents the argument explaining this variability, setting out the factors that account for the diversity and changeability of households found in Motulahi.

The Problem of Variability in Household Structure

592 The English term 'household' has no direct equivalent in Tongan. The Tongan word "*'api*", meaning a tract of land with a particular kind of use, is the word that is generally used where we would use the term 'household'. The primary referent of "*'api*" is the land. However, by extension in the case of "*'api kolo*" (town allotment) it also refers to the residential-commensal group of people living on the land. This group is the foremost unit of domestic organization in Tonga.

121 It might be thought that the way to go about analyzing the domestic sphere of organization is first to give a definition of 'household' and 'family' and then proceed to examine domestic organization in accordance with these definitions. Such an approach has two deficiencies in relation to the Tongan data. First, it

592 But this criterion for enumerating family units is set
659 aside at the end of the definition, where it says that
114
596 "aged parents . . . who are dependent on the head, do not constitute a separate family unit".[2] According to this provision, a household consisting only of a man and a woman and their unmarried children, and another household consisting of this same family group plus the man's aged and dependent parents and the woman's aged and dependent parents and both the man's and the woman's unmarried siblings (i.e., a total of three family groups), would both be counted as single-family-unit households. A possible explanation for this feature of the census definition is that aged parents of the head of the household who live in the household but who are not reckoned to be head of the household would be spoken of as belonging to the head's fāmili. However, the sense of "fāmili" that is used here is not the sense that is
[128] captured by the term 'family group'. In what follows, therefore, aged parents of the head of the household are treated analytically as a separate family group if they fit the other elements of the definition.

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[2] Ordinarily, people of the most senior generation in the household are the head of the household. A couple or individual of the most senior generation is/are not the head only if they are too physically infirm, materially dependent, or joined the household too recently to have the authority within the household that goes with being household head.

592 621 [171] did emerge from examination of the material relating to attached individuals was that it was the larger households that tended to have the added membership of attached individuals. However, even this point seemed at variance with what might have been expected on the basis of comparative data from other societies, which show households lacking in members compensating by the addition of attached individuals (Goody 1972: 17-18).

592 128 596 In attempting to account for the extent of diversity revealed by enumeration of Motulahi households according to the culturally significant notion of family groups, I tried to analyze the data in terms of other variables. One basis for analysis was suggested by the stated norms of intra-family behavior and other patterns of respect in Tongan society, such as brother-sister avoidance, the authority of the senior male vis-a-vis junior males, and the reverence due the father's sister. However, the observed composition of multiple-family-group households did not accord with the pattern one might expect on the basis of these norms (see Table 13).[4] While the plurality of households with family groups related through the

[TEXT CONTINUED ON PAGE 112]

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[602] [593] [4] A listing of the stated norms of intra-family behavior is given in most pieces of writing on kinship in Tonga. However, as Morton shows in his dissertation (1972), there is little or no correlation between these norms and actual patterns of relationships among Tongan villagers.

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TABLE 13

Genealogical Connection between Family Groups in Households with Multiple Family Groups*

Number of family groups in the household	Family groups related through	Number of households
Two (32 households)		
	Parent(s) - Daughter	14
	Parent(s) - Son	5
	Sister - Sister	5
	Brother - Brother	2
	Brother - Sister	2
	Other kin tie	3
	Non-kin ties	1
Three (15 households)		
	Brother - Sister - Parent(s)	6
	Sister - Sister - Parent(s)	3
	Other combinations of kin	6

Source: fieldwork survey.

* The two households of more than three family units have not been tabulated owing to the complexity of the ties among the constituent family groups.

592 128 596 parent/s-daughter tie would seem to call for some explanation, there was no obvious connection between this pattern and the stated norms of intra-family behavior.

[121] The model of the developmental cycle of domestic groups--about which Buchler and Selby note: "this dynamic, diachronic point of view . . . has become implicit in most analyses of household composition" (1968: 53)--also failed to reveal clear principles of household structure in Motulahi. To be sure, the developmental cycle seemed to be a factor in the composition of some households. However, the model by itself did not account for the actual composition of Motulahi households, nor was it clear why some households seemed to follow the pattern of a developmental cycle and others did not. Furthermore, given the diversity of household composition in Motulahi, deviations from the model of the developmental cycle could not be viewed simply as residual cases. Instead, an explanation of household structure in Tonga would have to account for the observed diversity.

592 128 It seems to me now, that as long as I was disposed to view household composition primarily in terms of role occupancy and collectivity membership, I was looking at Tongan households in the wrong way. Tongan household composition is more profitably viewed as the outcome of

592 [128] different ways of fulfilling certain demands upon the individuals and family groups that make up the household. The various ways of fulfilling these demands accounts for the diversity of household types. It is also the core of the explanation for fluctuations in composition [121] and changeability in household membership. This, it is clear, is a view of household structure which follows Leach's position that "social structures are sometimes best regarded as the statistical outcome of multiple individual choices rather than a direct reflection of jural rules" (1960: 124). Membership in the household allows the individual or family group access to resources that provide for culturally-defined essential needs. As the means for satisfying these needs or the needs themselves change, there are shifts in household membership. [591] Individuals and family groups may shift their place of residence, not only from village to village but sometimes from household to household within the village. Despite this fluidity, however, a Tongan household is an easily definable group at any one time with a fairly constant range of activities. These activities are primarily concerned with the production and consumption of food and are associated with the sharing of a common kitchen.[5]

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[5] These elements in the definition of household activities come into play in differentiating among house-

592 596 591 their children is a typically Tongan adaptation, despite its irregularity from their own point of view.[6]

Household Economics

128 The preceding section presented the problem of the diversity and changeability of household composition in Tonga. In this section we examine the economic considerations that affect household formation and changes in household composition.

592 591 One of the most important considerations in determining whether a man and wife will establish their own household is whether such a household would be economically viable. That is not to say that a household would definitely be established in such circumstances. It could certainly not be established, however, unless the household would have access to certain essential resources: cash, human capital, and local goods. In other words, while it is said to be the custom for newly-married couples to live with the parents of the husband, my argument is that it is not custom or sentiment that causes young Tongan couples to take up residence in a parental

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[6] The case of Kele and Solo offers an example of the sort of situation in which people might represent themselves to a census-taker as comprising an independent single-family household (when in fact this is not the case), because they regard their not being independent at the time of the census as a strictly temporary situation.

Summary

128 The account given in this chapter presents a description of processes of household formation in Tonga and the dynamics of fluctuations in household membership. This description provides a frame of analysis that enables us to account for the observed composition of village households and which makes the diversity and changeability of household composition intelligible.

592 The diversity of household composition among the
people of Motulahi reflects the diversity of circumstances
faced by people in Tonga and the range of available adap-
[423] tations. Among the most pervasive of these circumstances
is the increasing shortage of land, a factor which limits
the range of residential alternatives available to the
121 individual Tongan. It has been my argument that the
592 patterning of household composition in Motulahi is to be
accounted for not as the expression of norms regarding
kinship relations, but as the outcome of different ways
of satisfying the material and social demands upon the
persons who make up each household, particularly when these
demands are considered in relation to the resources available to the people involved. This is a dynamic process; as people's needs and resources change, they adjust their domestic arrangements. The statistical picture at any one time, therefore, is best understood as the cumulative

46: Decktor Korn E-5 (1969-1970) 1978 OU9 Tonga OU9
Tongatapu
Motulahi

CHAPTER V

LOCAL GROUPS IN OPERATION

128 The flexibility of stratagems and emphasis on individual decision-making that is characteristic of Tongan social organization has been indicated at various points in previous chapters and is especially evident in the materials that are presented in this chapter. The chapter deals with elements of optation in the organization of the three major kinds of local groups besides the household: localized kin groups, church congregations, and voluntary associations. It is particularly with regard to membership and participation in these groups that we see the principle of fa'iteliha put into operation, as people arrange and re-arrange their various affiliations.

Kin Ties at the Local Level

602 The tracing of kin ties is relevant to two different
[554] fields of action in contemporary Tongan society. One of
[128] these, where the tracing of kin ties establishes and validates claims to high rank beyond the local level, is me'a fakahou'eiki (pertaining to the chiefs) and beyond
[621] the scope of this dissertation. The other field of action

CHAPTER VI

BEYOND LOCAL ORGANIZATION

128 In the three preceding chapters, the focus was on social organization at the local level with particular reference to the people of Motulahi. As noted in the introductory chapter, however, the term 'local level' implies that there are other levels of organization in the society. Tongan social organization beyond the local level is probably best understood in terms of the three national-level authorities that control the conduct of affairs in the country as a whole: the government, the high chiefs, and the major denominations.[1] While it is beyond the scope of this dissertation to examine the national level of Tongan society in detail, at a number of points I have indicated that consideration of supra-local processes--particularly those relating to access to land--is essential for understanding the local-level phenomena under investigation. The local operation and effects of such processes

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[1] Some of the relationships among these authorities are examined in Marcus's doctoral dissertation (1976). However this is not the focus of his analysis, and no coherent picture of social organization at the national level emerges.

128 are seen in Chapters III and IV in relation to population
growth, land tenure, and settlement, and in Chapter V in
the discussion of denominational organization. What must
be considered in this chapter is how local units are
articulated with one another and with other units in the
national whole.

Village and Community

121 The first question to be considered is: what is the
621 significance of the village in the organization of Tongan
society? My argument is that the village as such is a
unit of little significance.

621 According to Nayacakalou, "the strongest single
622 force binding the members of the village together is their
common allegiance to their high chief" (1959: 100).
However, this "allegiance" entails few duties and changes
when the person moves to the village of a different chief.
Thus, this element of political cohesion within the village
generally amounts to little beyond the fact that the people
live in the same village and their rents are paid to the
621 same noble.[2] In considering this kind of village organization,
it must be understood that "one of the special factors

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[2] This is not to deny that in some cases villagers may have a strong sense of allegiance to their noble or chief and may perform certain services for him. But whether this is the case will depend on the persons involved and the circumstances of the relationship (see Chapter III).

46: Decktor Korn E-5 (1969-1970) 1978 OU9 Tonga OU9
Tongatapu
Motulahi

CHAPTER VII

CONCLUSIONS

Resolution of the Problem

128 Materials presented in this dissertation deal with
121 the problem of the variability of local organization in Tonga. At this point the diversity and changeability of elements of local organization in Tonga do not give the appearance of formlessness and flux, since the dissertation presents a description that gives order to the data. Such a description may give the illusion that the data are self-explanatory, leaving the reader wondering what it is that needed explanation. However, this is only because the description stems from an analysis that makes the data intelligible.

In the introductory chapter we saw that the problem of the variability of local organization in Tonga can be expressed in a series of questions. Chapters II through VI present an account of local organization in Tonga embodying materials required to answer these questions. Drawing on these materials, answers to the questions can be formulated as follows.

'Loose Structure' in Ethnological Perspective

121 I have argued in this dissertation that the diversity
181 and changeability of elements of local organization in
182 571 Tonga is not random but rather is explicable when considered in relation to the diverse and changing circumstances in which Tongan villagers find themselves and the looseness
128 of prescriptions for behavior in Tongan society. In this final section of the dissertation I wish to consider the concept of loose structure in broader perspective, not limited to the Tonga data.

121 Some critics of the concept of loose structure have rejected it on the grounds that recourse to explanation in terms of loose structure is tantamount to saying that there is no structure to the society or that the structure, such as it is, lacks stability or regularity. Thus, Potter writes that "many influential writers on Thailand have portrayed rural Thai society to the outside world as one strangely devoid of structure or form" (1976: 11). He challenges this "picture of Thailand as a society with a vague, shifting, unstable structure" (p. 7), and argues that the

> cumulative effect [of recent studies of rural Thai communities] shatters once and for all the loose-structure paradigm. . . . A reexamination of [earlier studies] reveals . . . basic structural elements found in all Thai villages to which, because of the loose-structure paradigm, these writers did not give sufficient weight (1976: 148).

49: Rogers A-4,5 (no date) 1969 OU9 Tonga OU9

Kingdom's total population, had 58.9% of the total households with two
161 family units and 63.2% of the households with three or more family units.
162 The Report does not distinguish whether households with several
592 families have come about as a result of grandparents, son and wife, and
grandchildren living in the same household, or as a result of brothers and their wives sharing one household. It is also unclear how the local census officers demarcated dwelling units clustered together and cooperating as the one single household. In many parts of Tonga there is a precedent in custom for three or even four generations of the same kin-group to live within the same *'api*, the family unit of the oldest son occupying the main dwelling with other units (parents and unmarried siblings; families of
[593] married siblings) having separate dwellings around. Because of the
traditional brother-sister *tapu* there may be an additional hut for unmarried sons. There is less precedent in Tongan custom for two or more family units of the same generation (e.g. siblings, their spouses and children) to live within the one dwelling: this could be a criterion of overcrowding.

It seems from the census figure of 16% ("households" with more than one family unit) that overcrowding is not yet severe in Tonga except in
[362] Nuku'alofa. Here families of siblings are sharing dwellings, and huts are
being built on swamp land. Elsewhere, the occurrence of households containing more than one family unit may be accounted for as the persistence of the traditional co-resident extended family, comprising several generations where each "extra" family unit may have its own separate dwelling house which may or may not have been recorded in the census schedule as a household. The increase in average household size has been accompanied by a fall in average overall acreage of land per household from 15.08 acres per household in 1956, to 10.98 acres in 1966.

* * *

The population densities already discussed have little meaning except
121 in relation to the availability and utilization of natural, agricultural and
13 human resources. The natural resources of Tonga comprise almost
311 exclusively the soils, reefs and surrounding seas with, in late 1968, an
elusive possibility of oil; the agricultural resources comprise almost entirely trees—particularly coconut, banana, breadfruit—and ground crops grown mainly without mechanical aids by slash-and-burn methods.
128 Human resources are discussed at the end of this paper.

Dependence on agricultural produce is enormous; in 1961 and 1964
433 these products amounted to 98.19% and 96.39% respectively of Tonga's
[939] total export earnings with copra (the dried kernel of the coconut) forming
the basis of the economy and constituting over 80% of the visible exports
[241] throughout the 1960s.[6] Agricultural products are the surpluses and
small cash-crops of Tonga's 12,000 or so peasant farmers who are scat-
[463] tered throughout the Kingdom and rent their allotments either from titled
[427] nobles or directly from the Government.

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[6] TONGA, 1960–1967 *passim*. Total exports for 1961 amounted to £T1,374,658; agricultural exports £T1,349,461; non-agricultural exports £T25,197.

52: Kaeppler E-4,5 (1964-1967) 1974 OU9 Tonga OU9

A Study of Tongan Panpipes with a Speculative Interpretation

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114 174 In the pages of the *Journal of the Polynesian Society* in 1941, Te Rangi Hiroa described a number of Polynesian panpipes, including two Tongan specimens from the voyages of Captain Cook, and attempted in his final paragraph to use panpipes as evidence to support his view on the migration of the Polynesians through Micronesia. In the intervening years, new studies of Tongan material culture, Captain Cook, and Polynesian migrations have made additional information available and it 128 seems appropriate to place this information on record. These remarks will be divided into three parts. First, it will be shown that panpipes can support an alternative migration route to that proposed by Hiroa. Second, the Cook voyage attribution of panpipes will be discussed. Third, the musical and aesthetic properties of Tongan panpipes and their relation to social organization will be explored.

174 Recent archaeological and linguistic research indicates that "proto-Oceanic people" reached Tonga by 1500 B.C., having traveled through the Melanesian area probably before much of it was inhabited by peoples we now call Melanesians (see Green 1966, 1967, 1968; Golson 1971; Groube 1972). These studies, of course, have not attempted to determine or even suggest what kind of musical instruments these people 534 used. However, the most widespread musical instrument in Polynesia 171 at the time of European contact was the bamboo noseflute, which was 175 found in nearly all of the island groups except New Zealand -- where bamboo was not available and a different group of wind instruments evolved. From this widespread distribution one would assume that the

[p. 102]

53: Marcus E-4,5 (1972) 1975 OU9 Tonga OU9
Ha'apai
'Uiha

GEORGE E. MARCUS

ALTERNATIVE SOCIAL STRUCTURES AND THE LIMITS OF HIERARCHY IN THE MODERN KINGDOM OF TONGA

I. INTRODUCTION [1]

121 Recent research on social relations in highly stratified societies indicates that principles of status differentiation uniformly permeate relationships on all levels in these societies. Dumont, for example, has shown that in India indigenous conceptions of purity and impurity structure both inter- and intra-caste relationships (Dumont, 1970). Maquet has defined a premise of inequality which underlies virtually all social interactions in the Kingdom of Ruanda (Maquet, 1961). From the perspective of the classic Weberian distinctions concerning social differentiation between class (distribution of control over goods, services, and resources), status (distribution of prestige and honor), and power (distribution of authority), the concern of the above analyses and this paper is primarily with stratification by status, specified in cultural ideologies of rank. The extent to which the distribution of prestige and honor corresponds to the distributions of power and of control over resources in any particular society is an empirical question of secondary interest here. Rather, the central problem of this paper is to examine the extent to which routine, everyday interpersonal relations within a low status group or class in a highly stratified society are in fact permeated by the same concerns with status differentiation or rank determination that characterize social relations between status groups or classes.

The expression of culture-specific ideologies of rank in interpersonal

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121 [1] The research for this paper was undertaken in connection with a project for the comparative study of law and conflict at Harvard University. My research
128 on Tonga is continuing at the present time. I wish to thank the government of Tonga under His Majesty King Taufā'āhau Tupou IV for kind assistance. Professors Stephan Fjellman, Klaus Koch, David Maybury-Lewis, and Nur Yalman read earlier drafts of this paper and made several helpful comments for which I am grateful.

[p.34]

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602 of independent households. The analytical structural focus of the family
612 estate then is minimally a set of true (as opposed to classificatory) adult
siblings. Also, aside from a minimal set of siblings, discrete family
estates are also composed of kinsmen in other categories of relationship.
Besides kin linkage, the other necessary criterion for inclusion in a
family estate is the nature of one's economic activity. Thus, the family
estate as used here is defined by a set of economic processes (flows of
goods and services) among a set of kinsmen, the focal composition
of which is a group of true siblings. A detailed analysis of the
characteristics of the family estate, particularly with regard to status
determination among component members, will define one major
domain of modern Tongan social structure.

621 A detailed analysis of the characteristics of the village community
will define an alternative structural domain in which concern with
status determination differs from that in the operation of family estates.
Every Tongan individual has a village or community identification
through which he interacts with neighboring commoners, some recognized
621 as kinsmen, some not. Also it is on the village level that an
565 individual is integrated into the societal class structure by his relationship
with the noble on whose land he lives. Commoners in Tongan
554 villages do not appear to manipulate genealogies to place themselves
closer to the noble's immediate kin set. At the village level, one's status
in the societal class structure is remarkably fixed.

565 It will be shown that concern with determination of rank in interpersonal
554 relations is important within family estates and between nobles
and commoners at the village level, but not in everyday interactions
128 among commoners in the village. After a discussion of the major
structural transformations that have occurred in Tongan society, the
structure of the family estate and of the village will be described in
some detail. Finally, the integration of these alternative social structures
is discussed in terms of an individual's strategies for managing his
varying social statuses in the alternative structural arrangements in
which he is involved.

II. HISTORIC TRANSFORMATIONS IN TONGAN SOCIETY

554 Concern with determination of rank occurs within three analytical
dimensions of Polynesian social structure: the kinship system, the status
612 or class system, and the descent group system (Goldman, 1970). In
former times, the population of Tonga was distributed over the three

III. THE TONGAN FAMILY ESTATE

The dispersion of kin groups from native villages and islands in modern 612
Tonga and the consequent formation of family estates are largely a
result of the growth of population, the scarcity of undistributed land, 166
and the individualistic land tenure system. There were no complete sets of adult siblings resident in 'Uiha; every adult individual had siblings and other members of his *kāinga* who were in long-term residence elsewhere.[5] It is difficult to distinguish permanent from temporary long-term absences, since many individuals who plan only temporary migration remain absent permanently. In addition, degree of dispersion 612
of kin groups varies considerably from *kāinga* to *kāinga* in Tonga, and
for any particular village community, the relative degree of dispersion 166
of a village's component kin groups has a great deal to do with the 621
presence of 'dominant' or economically powerful commoner families within a particular locality. Unless adult male siblings with families of procreation can find some local employment outside agriculture such

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[5] The alternative models of social structure developed here are intended to be 612
society-wide in scope. However, their range of application may appear to be
more limited since my field data are biased by the fact that I worked in an 166
area of Tonga, Ha'apai, where the rate of migration (and thus the degree
of kin dispersion) is highest. Yet, I feel that such a bias does not in fact 128
detract from the societal significance of my interpretive scheme, since the geographical mobility of Tongans in general is well-established by other writers (see especially, MacArthur, 1967; and Walsh, 1970), and from the few contacts that I had with kin groups in other parts of Tonga, I was impressed with the similar, mobile and dispersed nature of kin sets. The examples presented here, then, are not unrepresentative of what is happening in other Tongan communities. The following table, abstracted from the *1966 Census*,
provides one specific useful, but crude index of population dispersion. No 612
account of Tongans overseas is available (*1966 Census*, Table 10A, pp. 63-68): 166
162

		Tongatapu M/F	Ha'apai M/F	Vava'u M/F	Other Islands M/F
Tongatap	M	18,719	389	428	604
	F	17,414	452	466	405
Vava'u	M	2,212	225	5,088	158
	F	1,902	251	5,730	157
Ha'apai	M	2,455	4,513	280	222
	F	2,276	4,577	299	92
Other Islands	M	775	54	117	2,003
	F	853	74	125	1,748

Table a: Tongan Population Classified by District of Birth In Conjunction With District of Census Enumeration and By Sex (Totals Cover All Ages).

IV. THE TONGAN VILLAGE

Village and family estate domains overlap in that every Tongan community is composed of segments of family estates, which are native to the 621 community, and of segments of family estates, which although native to 612 other communities in Tonga, usually have some *kāinga* tie to a native resident of the community in which they are located. It appears that after the passage of at least three generations since a change in residence, a kin set's identification with a new *fonua* becomes established and accepted by older members of the community, even though the kin set and others in the community may still recognize its connection with a previous *fonua*. Alternatively, there are cases of individuals (in 'Uiha, for example) who recently decided to settle in a community and who were immediately accepted as native members, because their ancestors (usually remembered not more than three generations back) came from the community. Establishing traditional associations with long-standing communities either through long-term residence over generations, or through renewing a former connection is an essential criterion for defining *fonua* membership as opposed to newcomer status in villages.

Associated with *fonua* identification is an individual's identification 621 with a particular noble, who is either the landlord of the *fonua* (as his *tofi'a* or estate) or has historical associations with it. Even Tongans who 565 live away from their native *fonua* recognize a connection with their 571 noble. However, this recognition may have very little practical importance for them, since modern noble-commoner relations are focussed on the landlord-tenant aspect of these relations which has little direct significance for an individual living away from his *fonua*. It is within Tongan villages that interactions manifesting the hierarchical and egalitarian aspects of the traditional class system are most frequent and visible to the observer.

The operations of the class system within Tongan villages will be 128 considered in two dimensions: noble-commoner relations and commoner-commoner relations. Points of discussion will be illuminated by reference to data collected in 'Uiha. A general typology of Tongan communities, 621 based on the form of noble influence, is a useful background to the 565 following discussions: (1) those communities located on the estates of 423 nobles native to and resident in these communities; (2) those located on the estates of nobles native to but non-resident in them; (3) those located on the estates of nobles from other *fonua*, but resident in them; (4) those located on the estates of nobles from other *fonua* and non-resident in

duct you through between Maccaha and Monooaffee[1] or the 4th and 133
5th isles which you will preceive to lay off the West point of the Lagoon, or you may go between the 3rd and 4th that is between 504
Pangymaudoo and Manooaffee,[2] but this channel is much Narrower than the other. There runs a very strong tide in both, the flood as I have before observed, comes in from the NW and the Ebb, retur[n]s the same way, but I shall speak of the Tides in a nother place. As soon as you are through either of these Channels haul in for the shore of Tongatabu and Anchor up in the bieght between it and Pangymaudoo, before a Creek leading into the lagoon, into which boats can go at half flood.[3]

Altho *Tongatabu* has the best harbour *Anamocka* furnishes the best 312
Water, though it cannot be called good, however by diging holes near the side of the Pond one gets what may be called tolerable. This island too is the best situated for drawing refreshments from all the other as being nearly in the centre. Besides the road in which we 133
anchored and the harbour within the SW point, there is a creek in the reef before the Eastern Sandy Cove on the North side of the island, in which two or th[r]ee Ships might lay very secure by mooring head and Stern with their anchors or Moorings fast to the rocks.

Happi is a group of islands extending SWBS and NEBN about 19 101
Miles and are connected to each other by a reef of coral rock. The North end lies in the Latitude of 19°39′ S and 33′ of Longitude to the 131
East of Anamock[a], between them are a great many small islands sand banks and breakers, so that the safest way to come at Happi is either by the rout I took or round by the North, according to the situation of the Ship bound thither. *Lefooga* off which we Anchored is the most fertile isle of them all and of course the best inhabited. There is anchorage along the NW side of this island, but it will be 133
necessary to examine the ground well before you moor, for altho the lead may bring up fine sand there are nevertheless some sharp coral rocks that would soon distroy the Cables.

Those who want a more particular description of these islands 128
must have recourse to the annexed Chart,[A] in which every thing is deleneated with as much accuracy as circumstances would admit. Recourse must also be had to the same Chart for the better finding out the several stations of the Ships and their rout from the one to

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[1] Makaha'a and Monu afe.

[2] It should be Pangaimotu and Makaha'a. Cook's names, repeated from the passage on p. 155 above, suggest that he had got Makaha'a and Monu afe mixed in his mind, though his chart was correct.

[3] Here he means the passage between Holeva (his 'Observatory Point') and Nukunuku.

A [See category 102, p. 104--Analyst]

128 the other.[1] To have swell'd the Journal with a minute accou[n]t of bearings tacking &cª would neither have been entertaining nor usefull.

121 What has been here Omitted concerning the Geography of these islands will be found in the Narrative of my last Voyage; to that Nar- 114 rative I must also refer for several particulars concerning the Inhabitants, their Manners and arts, as I shall now confine my self to such things as are intresting and not mentioned in that Narrative and such as may tend to explain some passages in the account of our transactions with them.

124 It may indeed be expected that after spending between two and three Months among these islands, I should be enable[d] to give a good account of the customs, opinions and arts of the inhabitants, especially as we had a person on board who understood thier language and he ours.[2] But unless the object or thing we wanted to enquire after was before us, we found it difficult to gain a tolerable knowledge of it from information only without falling into a hundred mistakes; in this Omai was more liable than us because he never gave himself the trouble to gain knowledge for himself, so that when he was disposed to explain things to us his account was often very confused. It was also very rare we found a person both able and willing to giving us the information we wanted, for the most of them hate to be troubled with what they probably think idle questions. 129 Our situation at *Tongatabu* where we remained the longest, was likewise unfavourable; it was in a part of the country where there were few inhabitants except fishers; it was always holyday with our visitors as well as with those we visited, so that we had but few oppertunities of seeing into their domistick way of living.

144 *Persons Manners and Customs*

As to the people they differ very little from those of Otaheite either in their persons or desposition, if any thing these have the advantage in being better limbed and finer shaped, but than their complexion is much darker.[3] 142 The hair is of different colours that is black, dark brown and flaxen,

302

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[1] By the 'annexed Chart' Cook must, I presume, mean the original from which was engraved Pl. XII of the printed *Voyage*, I, on which Bligh makes the comment (AL, p. 225), 'This is a Copy of my Chart, which was an entire Survey of my own except the South side of Amsterdam & the Islᵈ Eooa which C. Cook laid down'. See, for a modern equivalent, Fig. 5 in the present volume.

[197] [2] We get a note on the language from Burney, f. 205. 'The Tongitabu language is more distinct and easier to be learnt than the Otaheite. it is less composed of vowels and does not afford so many instances of words nearly alike conveing different meanings. the G and K are sounds not used by the Otaheiteans and which they are not able to pronounce. in many words the gradual change of language may be traced from the Society Islands to the westward; as in Boa (a Hog) at Otaheite, Boakko at Tongitabu and Wacka at Horn Island.'

[3] Because of their position on the Polynesian-Melanesian borderline.

A [See category 102, p. 104--Analyst]

264 each to serve a certain number, these generally divide again, so that one seldom sees above two or three eating together. The Women are [565] not excluded from eating with the Men, but there are certain ranks or orders among them that can neither eat nor drink together; it begins with the King but where it ends I cannot say.[1]

128 *Amusements* Of their amusements I need add nothing to what has been already said on this su[b]ject in the account of the incidents that happened during our stay at the islands.[2] 595 *Polygamy* Polygamy is allowed to the Cheifs, and it is no uncommon thing to meet [565] with some who will tell us they have got eight or ten wives, but the most of them are satisfied with one at least many had no more. Some of us were of opinion, that the most of those which they called their wives were only concubines, and that there was only one that was looked upon as the wife and who always appeared to be the 837 Mistress of the family.[3] As chastity at first sight appeared to be held in no great estimation, we expected to have found frequent breaches of the conjugal fidelity in the Married Women or kept Mistresses, 836 which you please, but it was the very contrary. I do not know that our whole Stay produced one instance; neither are those of the better sort that are unmarr[i]ed more free of their favours, its true there are no want of those of a different stamp, and perhaps they are more numerous in proportion to the number of people than in many other Countries; but it appeared to me that the most, if not all of them, were of the lowest class of people, and such as came to our people were Whores by profession and brought to us in order to make the most of the present time.

164 *Diseases* This commerce has unhappily entailed upon them the Veneral deasease, as we had not been long at Anamocka before some of our people were affected with it, and I had the Mortification to find that all the care I took when I first Visited these islands to prevent this dreadfull desease from being communicated to them, prove enefectual. What is extraordinary the people do not

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[643] [1] The general rule was that inferiors could not eat with superiors: the Tu'i Tonga could not eat in the presence of the Tamaha, and so on down the whole scale of precedence. [644] There was also the brother-sister *tapu*, the sister being of higher rank than her brother.

[599] [2] '. . . to their private diversions may be added their household ones, the men have a game calld Kaka-'habo exactly like our Cup & ball. The Children have plays familiar to themselves, as throwing up 5 or 6 balls & catching each successively, this is mostly a Girls [524] diversion, the boys cut a string exactly in the same manner as we do a Garter & take off & on in various shapes & ways from the fingers, they walk on Coco nut shells as we do on stilts by means of a Cord thro: the hole of the Shell with many other plays like our Children.'—King.

[3] This was so, though to equate 'concubine' with 'kept mistress', as Cook does in his next sentence, is not quite happy. The word must be used in the technical polygamous social sense: a Tongan bride might bring her husband a *fokonofo*, a secondary or supplementary wife, selected by herself from her own family, perhaps a younger sister—or perhaps

[1777]

782 they do not worship any thing that is the work of their own hands, nor any visible part of the creation. They do not make offerings of Hogs, Dogs and Fruit as at Otaheite, unless it be emblematical as their Morais are perfectly free from every thing of the kind; but that they
346 offer real human sacrifices is with me not a doubt. Their Morias or Afiatoucas, for they are called by both names, but mostly by the
764 latter, are as at Otaheite and many other parts of the world, a burying ground and a place of worship, though there are some that seemed to be only appropriated to the first, but these are small and in every other respect inferior to the others.

As we never saw a funeral, I can give no account of the ceremony
764 used on that occasion. We only know that the dead are buried in these Morias, probably in something like vaults, or as Omai called them (who was with me when I made the enquiry) stone coffens.[1]

I shall conclude my observations on these islands and people with
128 giving some account of the Astronomical and Nautical observations that were made during our stay among them. And first I must observe that the difference of Longitude between Anamocka and Tongatabu, is less by than in the Chart and Narrative of my last voyage; an error that might easily arrise, as the longitude of each was found without any conection with the other, but now the distance between them is determined to a degree of precision that will not admit of the least error; and which the following table will illustrate.

Latitude and Longitude

131 The Latitude of the observatory at Tongatabu by the mean of several observations } ° ′ ″

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776 'otua (numerous ones—district gods, lineage gods and family gods) dwelt in a region in the west called Pulotu, to which the souls of chiefs and *matapule* made their way; but com-
171 moners came, as it were, to a dead end. 'They have a very Gentlemanlike notion of a future State, they firmly believe that Woweatooa never troubles himself about any one but
771 the Eggees or *Gentlemen* but when they are dead they rot & return to earth & there is an end of them.'—*Bayly*, 17 May. King, 5 July, has something to add. 'My friend Fatta-
773 fai' he did me the honour to appear much affect'd during the time I was packing up the observatory, he with earnestness prest me to stay, & told me that he woud build a large
775 house on the point w[h]ere our observatories stood, & that I shoud observe the heavens in peace. It shoud be observ'd, that when these people gave any opinion as to the use of the clocks & other instruments & the reason of our observing, they always supposed the Clock
777 to be an Eatŏŏa (God) & that we were performing religious ceremonies to the Sun Moon &[c]; many of these notions of theirs were rather countenanc'd, as it was surely better to leave them with ideas of our having some religion than none at all & it is too true, that no other part of our conduct or way of spending our time, coud furnish them with the smallest reason to suppose we had any Religion, indeed many of them woud ask who & what was our God, which we endeavourd to answer by saying he was theirs as well as our God, & corresponded with an opinion of their own of one Omnipotent being: the little we were able to learn concerning their religious tenets shall be referred to another place.'

[1] The interpretation of 'stone coffins' as vaults is of course correct; but Cook might have omitted his 'something like'. They were indubitable vaults.

ties, can be subdivided: status among kinsmen (*ḳāinga* ranking) incor- 554
porates principles of age, sex, and whether the individual is related through 612
the mother or the father; however, in *ḳāinga* inheritance, the significant
dimension is male primogeniture within the patrilineal group. Societal 554
ranking includes two kinds of rank: chiefs are differentiated from com- 565
moners, and entire societal groupings (*ha'a*) are ranked in regard to each
other. *Ha'a* cannot be uniformly subdivided to form family groups, as one 613
might ideally expect in terms of collateral segmentation. Instead, *ha'a* are 554
societal divisions that have political functions and can be conceptually
separated from the kinship system (although there is a great deal of interac- 612
tion between them). One individual may rank higher than another in 613
societal rank and lower in *ḳāinga* rank; or two individuals may be related in two different ways, and they may alternately outrank each other, depending on which relationship is being activated. Conflict is usually avoided in such cases because the activity taking place generally prescribes which kind of ranking shall receive priority. A social occasion within the kin group activates different principles than does a village affair, or one that involves the whole society.

The first major strand to be dealt with will be *ḳāinga*, on which social 128
status and inheritance among kinsmen depends. Second, class ranking will be dealt with, that is, the ranking of the roles of chiefs and commoners. Finally *ha'a* rank, that is, the ranking of groups associated with a title that
originated by collateral segmentation, will be described. Throughout, the 128
concepts of *'eiḳi* (chiefly) and *tu'a* (common) are used; that is, within
each strand some individuals or groups are considered to be higher than 554
others. Though the strands are separated for easier explication, the relationships between them are implicit. These relationships are sometimes contradictory, but because of this are useful in reinforcing chiefly position, especially at the highest societal levels.

KĀINGA RANKING

All relatives to whom one can bilaterally trace a relationship are called 612
ḳāinga (kinsmen). One has many *ḳāinga*, a number of whom may act as a group on various occasions, and perhaps it is best to consider *ḳāinga*
as consanguineal relationship. *Kāinga* is not the same as a Samoan *ainga*. [171]
The Tongan language has no indigenous word for family, the word
fāmili having been adopted from English to refer either to the nuclear 593
family or to the bilocal extended family, but it seems that no such word 192
was used during pre-European times.[8] 596

Kinship Categories Used for Reference Among Kāinga 601

Kui: all male and female kinsmen two or more generations above ego.

Mehiḳitanga: all female kinsmen one generation above ego related through the father, e.g., FaSi, FaFa, SiDa.

Tamai: father and all male kinsmen one generation above ego related through the father.

178

satisfied to take a rear seat to those whom they feel to be intellectually 559
inferior. 565

It would seem that Tonga will not cease to be a rank-oriented society. 555
Rank is endemic to Polynesian society and no doubt will continue to be an
organizing factor in Tongan social and societal structures. The principles of
rank will probably shift to a greater emphasis on achievement, which
indeed was true at the time when Tupou I appointed his legal nobles
from a large choice of chiefs. At that time achievement was based on war-
fare and ability. After the nobles were appointed, however, the traditional
principles of rank took over, and in effect they changed only in small de-
tails that functioned in such a way as to make major changes unnecessary.
This may continue to operate in the future, with educated commoners 000
marrying the daughters of chiefs to elevate their descendants' class rank.
But it is hard to see how *ha'a* rank will continue to be the vehicle of politi-
cal power play. Already there are two educated commoners as Cabinet [565]
Ministers, and it seems probable that, not too far in the future, office holders [555]
by virtue of tradition will operate in a sphere of influence that is separate
from real political power, which will then be in the hands of nontradi-
tional leaders operating under new principles of rank.

NOTES 000

1. Research in the Tonga Islands was carried out for one and one half years from [122]
1964 to 1967 and was supported by Public Health Service Fellowship No. 5-F1-MH-25,
984-02 from the National Institute of Mental Health, and by the Wenner-Gren Founda- [114]
tion for Anthropological Research. I wish to thank the government of Tonga under
their majesties the late Queen Sālote Tupou III and the present King Tāufa'āhau
Tupou IV as well as the many Tongans who helped me in my work, especially the
Honorable Ve'ehala, keeper of the Palace records, who was especially helpful in tradi-
tional and genealogical information. I would also like to thank Raymond Firth, Alan
Howard, Roger Green, Ward Goodenough, and Marshall Sahlins for reading and com-
menting on this paper. Most of the information was collected in the field; there was [128]
little reliance on earlier published accounts of Tonga. The reader will note that fre- [127]
quently details do not agree with Gifford (1929) but that in many ways Tongan social
organization was the same in 1967 as it was in 1920. [178]

2. Rank as manifested in material culture and language will be the subject of a sub-
sequent paper.

3. The term *matakali* is also in use today. The word is a borrowing from Fijian [192]
mataqali and refers to a group not necessarily related by traceable blood ties.

4. A woman may differentiate her *tama* by the terms *tama fefine* (female offspring)
and *tama tangata* (male offspring), but it is not necessary to do so because her be- [601]
havior to them is the same. A man, however, elevates his daughter over his son and [602]
correspondingly differentiates them terminologically.

5. See Gifford (1929) and Beaglehole (1941) for customs relating to brother-sister
avoidance.

6. *Tokoua* can be divided into *ta'okete* (elder sibling of the same sex) and *tehina* 602
(younger sibling of the same sex). The principle of relative age has little importance 612
here; in fact, descendants of two brothers or two sisters are often termed *kāinga tau* 554
(fighting relatives) because they often argue over which one is higher. This principle
does have importance, however, in inheritance. [601]

7. The example assumes that all have the same class rank.

8. A dead man's *tama 'a tu'asina* (children of his mother's brother) and the *tama 'a*
tu'asina of his mother (children of his mother's mother's brother), are known as *liongi* [764]
(for funerals only). [601]

16

ADRIENNE L. KAEPPLER

Folklore as Expressed in the Dance in Tonga[1]

121 A STUDY OF DANCE in Tonga must go back to the more basic art of poetry, for
535 understanding the poetry is essential if one is to understand the meaning of the
538 dance. On the other hand, if one is to study poetry or any other verbal art in Tonga,
it is essential to study dance, for today folklore is expressed mainly through the
medium of dance. Folklore and dance, then, are interrelated arts and must be
viewed in relation to the socio-political system which produced them.

538 There are two basic kinds of dance in Tonga—one which has movement as its
128 main element, and one which accompanies poetry. It is with this latter type that we
[535] will be concerned, and it can further be divided into two types. One type sings
the praise of the royal family, the high chiefs, and an ethnocentric love of Tonga,
[186] and is essentially an expression of allegiance to the established political and social
order; the second kind comprises legends and folklore from Tonga's hallowed
past, and also from more recent times. Indirectly, however, this second type of
poetry functions in the same way as the first. The example discussed in this paper
is of this latter type.

535 The usual kind of dance that accompanies poetry is called *lakalaka,* which literal-
ly means "to walk" and, indeed, the leg movements are basically a walk that moves
one step to the left, then one step to the right, and occasionally forward and back.
The arm movements are graceful and intricate, deriving their distinctive character
from the rotation of the lower arm. The dance is performed by all the men and
[554] women of a village ranged in two or more rows facing the audience. The men
stand on the right side (from the observer's point of view) and women stand on
the left; the order in which they stand is determined by social status. The men do
one set of virile movements while the women do another set of very graceful move-
535 ments so that there are two dances going on simultaneously. Each group interprets
538 the poem in a manner consistent with the Tongan view of movements suitable and
appropriate for each sex. The movements dramatize the poetry. They do not
pantomime the words, nor do they symbolize in the sense that one movement
symbolizes one phrase, or idea. Rather they are figurative: the movements create
an abstract picture to which a number of meanings can be assigned, and conversely,
[181] one idea can be alluded to by several different sets of movements. This illustrates
the Tongan value of "not going straight," for the proper way to refer to ideas

or concepts is in a round-about way. This value is further exemplified in the poetry, 535
for the words do not necessarily tell the meaning of the poem. Thus the dance 538
creates a double abstraction—the movements allude to the words while the words [181]
allude to the hidden meaning.

The poetry is a series of concepts and references. Theoretically, these allusions 538
should be readily recognizable in a homogeneous society such as Tonga, where the 184
people have a common cultural tradition, and the poetry is written with the view
that only allusions are necessary and the meaning is clear. In fact, however, only a
few people, who are usually other poets, claim to understand the allusions with
their mythological and genealogical references.

To illustrate these allusive qualities of *lakalaka* poetry I shall use as an example 539
a *lakalaka* from Lapaha, Mu'a, Tongatapu. Lapaha was the former capital of [128]
Tonga and the traditional home of the most exalted line of Tongan rulers, the
Tu'i Tonga. The people of Lapaha are known for their dancing and their knowl-
edge of the sacred and legendary lore of Tonga. The poetry (*ta'anga*) of this [643]
lakalaka was composed about 1948 by the late Queen Salote Tupou III, who was a
descendant on her mother's side of the Tu'i Tonga line. The melody (*fasi*) and [533]
dance movements (*haka*) were created by Vili Pusiaki of Lapaha. This *lakalaka* [535]
alludes to the legendary Tongan turtle named Sangone, but the story of Sangone
is not told because it is assumed that everyone already knows the story. In fact, the tale of Sangone is only suggested in the poetry by eight lines which are a riddle that was used by a Tongan chief to find the shell of Sangone after it was buried in Samoa. The object of the poetry, however, hidden in allusions, symbols, and metaphors, is to trace the genealogy and praise the deeds and accomplishments of Tupou I, progenitor of the present line of kings—the throne now being held by Tupou IV.

The story of the turtle Sangone has been published by E. W. Gifford.[2] To summarize the main points, Hina of the underworld and a Samoan lived together in Tonga for a long time. When the Samoan wanted to visit his relatives in his homeland, Hina gave him her mother, a turtle named Sangone, to carry him home. Hina told him that the first thing he must do on his arrival in Samoa was to get a coconut-leaf mat and a bunch of coconuts for Sangone to bring back to Tonga. The Samoan did not do as he was told but went off to visit his relatives. The townspeople cooked Sangone and buried her shell in a hole. A boy named Lafai who saw where they buried Sangone was told that he would remain small (*pana*) and on the day that Sangone was found he would die.

When the story reached Tonga that Sangone's shell was buried in Samoa, the King of Tonga sent his brother, Fasi'apule, with a party to look for Sangone's shell. When they arrived in Samoa, they were served the customary *kava* (a ceremonial drink made of an infusion of the root of *Piper methysticum*). Fasi'apule, speaking in riddles that the Samoans did not understand, asked for several items. The people asked Lafaipana, who by this time was quite old but still a boy in appearance, to interpret the riddles. He knew the references, and Fasi'apule's requests were granted. Fasi'apule then sent for Lafaipana and asked him where Sangone was buried. After Lafaipana had showed the Tongan party the place he asked for a "perch for his pigeon" before they dug up Sangone. Fasi'apule, not understanding that this was a riddle, sent his men to get a perch for a pigeon.

61: Kaeppler E-5 (1964-1967) 1977 OU9 Tonga OU9

128 This dissertation was initiated under the direction of Dr. Alan Howard while he was a member of the faculty of the University of Hawaii. He continued as chairman of the dissertation committee even though he transferred full time to the Bishop Museum. Dr. Thomas W. Maretzki assumed the official chairmanship for purposes of final defense.

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61: Kaeppler E-5 (1964-1967) 1977 OU9 Tonga OU9

ABSTRACT

121 The problem of this dissertation is to devise a method to analyze
the structure of dance. Ethnoscientific in orientation, the method
128 presented borrows heavily from structural analysis as used in
linguistics, which by induction seeks to discover units and patternings valid in terms of a particular system. The method devised is then used to analyze the structure of Tongan dance.

121 The two most basic levels of dance organization derived, kinemic
and morphokinemic, are comparable to phonemic and morphemic levels in
[535] linguistic analysis. The kinemic analysis of Tongan dance isolates
47 movement units which are the basic components in that dance
tradition. Kinemes may have several allo-kines which vary physio-
logically but are considered the 'same' or a 'variation' of a kineme
[126] by 'native speakers' of the dance tradition. The kinemes with their
several allo-kines are 'kinetically' notated in Labanotation, a graphic
system for recording human movement.

The second level of dance organization is called morphokinemic and combines sequences of kinemes into recognized movements. The internal structure of morphokines is described in terms of kinemes and the external distribution is discussed in terms of co-occurance of morphokine classes.

The third level of dance structure in Tonga is called the motif level. This section ennumerates some of the frequently occurring combinations of morphokines that form short entities in themselves.

[p. v]

122 specific research died under me, so to speak, this did not prove to be
765 an insurmountable problem. After a month or so, some of my informants
766 784 were willing to teach me some dances and were willing to talk about
122 dance. In some ways this was an advantage, for if I wanted to know
124 how to do something, they could not tell me to go and look at a
performance, but had to demonstrate instead.

122 The last nation-wide celebration with dance performance was in
535 1962. It is not very often that a large-scale celebration is held, so
541 the Queen's death was not the only reason that I could not observe one.
I did, however, miss the minor dance performances which would have been
123 held if the Queen had not died during my residence. Fortunately,
during my first field trip and the first three months of my second
field trip I did see performances of all the dance genres. I also
learned to perform a dance of each genre. From observation, participation, and persistent questioning my research has enabled me to
delineate the structure of Tongan dance and its function in the
society.

121 Many other aspects of life were studied that will not be
presented here. A good deal of my time was occupied with gathering
126 of texts that dances accompany. These texts are not written down but
[122] are reconstructed each time they are to be performed by the people who
know them, and it was particularly difficult to gather these people
together especially when it was tapu to sing dance songs. These texts
[128] are very important in ascertaining the meaning of the dance. The

126 gathering, translation and search for meaning of these texts were
128 probably the most frustrating aspects of my research. (See Kaeppler
121 1967a for an interpretation of one of these texts.) I also worked
129 on the interrelations between tapa design, the dances, and their texts,
and I was instructed in the making of tapa, mats, and other kinds of
122 plaiting. Actually, it was my good fortune to be in Tonga at the time
of the funeral and mourning ceremonies of the Queen. These were not
only illuminating in themselves but gave me insights into aspects of
121 culture that I might otherwise have missed. Throughout my research,
181 no matter what aspects of culture I examined, the fundamental theme
of social organization always arose. Language, material culture,
dance, religion--all referred ultimately to the fundamental emphasis
of this society on its socio-political system.

195 chiefs, *'alu* for commoners and *lele*, a derogatory word, when speaking
565 of oneself to persons of higher rank. Integrally related with the
537 language of respect is speech making. The *matāpule*, ceremonial
195 attendants, are the traditional speech makers and are of necessity
[565] well versed in the language of respect. Speeches are the most important element on all formal occasions--and formal speeches have a definite structure. The structure is in three parts, 1) *fakatapu*, 2) body of the speech, and 3) *tatau*. The *fakatapu* is usually couched in stylized phraseology and in effect acknowledges the presence of important people and asks their permission to speak. The body of the speech usually alludes to the occasion by figurative and metaphorical language. The *tatau* is a concluding expression of thanks and often acknowledges again the presence of the important people. Speeches are linguistically subtle and sophisticated, and often by allusion and the use of homophones make it possible to say one thing and refer to something quite different. The structure and language of speeches corresponds to the poetry of certain dance types, which will be elaborated in Chapter VII[A].

SOCIAL SYSTEM

128 Only a few observations will be made here in regard to the social system. In addition to suggesting how Tongans order their interpersonal relations, these observations have been selected because they are necessary to understand the formation of dancers in certain dance
554 types. The main idea to be presented is that the Tongan social system

A [See category 116, pp. 241 ff.--Analyst]

CHAPTER III

DANCE AND A METHOD FOR ITS DESCRIPTION

THE DOMAIN OF DANCE IN TONGA

128 At the outset it is necessary to define precisely what is meant by dance and how the Western concept compares with the Tongan.

192 535 Let us begin with the term *faiva*. *Faiva* is defined by Churchward as a noun meaning, "work, task, feat or game, etc., requiring skill or ability; trade, craft; performance, play, drama, item (at a concert, etc.); entertainment; film, moving picture" (1959, p. 23). Baker defines *faiva* as, "calling, occupation, anything at which a man is 123 clever" (1897, p. 31). However, while I was in Tonga I was always described by Tongans to each other as '*ta'ahine ako faiva*,' that is, 'the girl who is learning *faiva*.' Then they would enumerate the kinds of *faiva* that I already knew something about or just what sort of 123 *faiva* I was interested in. When I was just beginning to learn Tongan, 192 535 I told people I was interested in learning *me'e* which Churchward gives as the translation for dance (along with *hulohula* which means ballroom dancing). This confused my informants because *me'e* includes only certain kinds of 'dances' and it is not a term that is generally used today. I listened to their conversations until I discovered that they were translating 'dance' as *faiva* and then qualifying it by either listing one or more kinds of *faiva* or saying that I did the 192 535 *haka* well. *Haka* is an intransitive verb meaning, "to move the hands rhythmically, esp. while singing." The reduplicated form *hakahaka*

121 term in a different sense.[2] Kinemes in his system have meaning--
while in this system the requirement is that they are significantly
different in movement to the 'native speakers' of a given dance
tradition. Meaning in this study is not relevant until the morphokine level.

The first aim will be to isolate the significant units of movement, kinemes, for the dance culture of Tonga and present them in the
form of a list or inventory. It will then be shown how these kinemes
combine to form morphokines and how they, in turn, combine to form
126 motifs and finally dance types. Labanotation, as noted above, is
capable of recording all forms of movement in very precise terms.
However, only a small segment of all possible movements are significant
to the Tongans and thus only the relevant parts of the Laban system
will be used. Labanotation symbols will be explained only as needed.
For a complete list of those used in this study see Appendix C.[A]

Kinemes will be designated by a letter with a numerical subscript.
128 The letter will designate the part of the body while the numerical
subscript will designate what it is doing. For example, 'W' designates
'wrist,' while $_1$ designates that the wrist is bent forward and $_2$

---

[2] "Turning to microkinesic analysis, experiment reveals that the various kines may be variedly produced in structural organization or in degree of stress or extent of completion of the particular motion. These variations, which do not change differential meaning, are described as allokinic. From the abstraction of the class of allokines is derived the given kineme which may be lid closure, or head set, or brow position, or mouth behavior, etc." Birdwhistel 1952, following page 75.

A [See category 126, pp. 318-319--Analyst]

128 designates that the wrist is bent backward. This is similar to the designation of components as used in kinship analysis (see, for example, Wallace 1962). Kineme designation will be written with arbitrary symbols corresponding to those used in componential analysis. Kinemes will then be etically notated in Labanotation.

Just as a phoneme may have more than one phonetic member or allophone, so too, a kineme may have more than one etic member, which at the risk of carrying linguistic parallels too far, I will call 'allo-kines.' This term is also used by Birdwhistel (see footnote page 35).

Following Pike's analytical procedure for a "detailed technical descriptive statement" which requires first a description of the phonetic nature of the phonemes (1947, p. 177), I will present the kinemes significant in Tongan dance in componential designation and their etic nature in Labanotation.

123 kind of movements. From this I learned how much variation there was from individual to individual (interpersonal variation). A combination of these two types of variation gave me a chance to see the same movement performed in several contexts (contextual variation). After I learned the movements I performed them in what I considered to be correct and incorrect ways. My 'teachers' would correct versions that were not acceptable. From this I learned that the amount of variation allowed is different in different dance genres.

128 In summary then, my procedure was to make observations, to form hypotheses about what was significant in the performance, and finally to test the hypotheses, verifying, modifying, or rejecting them. This was not possible for each kineme individually, but I tried to follow these steps whenever I could. From these steps and further analysis I have isolated the gross and lesser body parts used in Tongan dance and abstracted the smallest significant units of the movement system.

121 These significant units are here termed kinemes which include positions as well as small units of motion. The kinemes include only the contour of movement. Timing is not part of their definition, because the timing of a kineme can vary and still be considered the 'same.'

Kinemes are arrived at by a contrastive analysis similar to the process of arriving at phonemes. That is, the significant element is whether a kineme is perceived as the 'same or different' as another kineme--that is, if it contrasts. Actual physiological differences

535 [123] It was quite often the aspect of head movement that they talked about when speaking of my progress with each other (for example, "ta'ahine poto fakateki" which means 'clever at moving the head'). There are two types of head movement but only one of them is emic. The emic head movement listed below as a kineme is named, *fakateki*, which gives evidence that it is recognized as a movement.

Hips

In Tongan dance the hips do not move in a way that is significant or emic to Tongans. However, there is a natural movement of the hips following the leg movements. In the case of the hips, absence of exaggerated movement is considered significant. In fact at one very high level of contrast in which Tongan dance is distinguished from non-Tongan dance, the principle or dimension of contrast is hip movement.

Three body parts have significance to a structural analysis of Tongan dance. Motions and positions which derive from use of the head, legs, and especially of the arms will be used in analyzing the formal structure of Tongan dance at the kineme level.

Head Kineme

The first part of the body to be considered for emic significance is the head. There is only one head kineme that has such significance and this is a tilt where the head moves quickly to the right side.
535 The head will be labeled 'H' to abbreviate 'head.' The subscript $_1$
126 denotes the occurence of the side tilt.
128

126 In Labanotation:

128

535 H_1

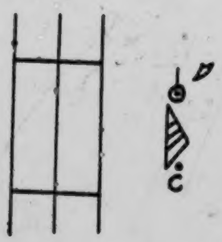


Figure 4.1. Side head tilt, H_1.

In Labanotation 'C' is called a presign for the head, indicating that what follows it in that column refers to the head. A triangle facing right means it moves to the right side. Slanting lines within a symbol mean that it is in a high position. The '⫰' means 'return to normal.' The '>' designates that '⫰' refers back to the presign 'C'. The '.' designates that the movement is not quite as far as the symbol '▷' indicates, that is, it is at an intermediate position between normal '▨' and '▷'. The symbols say:

⫰ return to normal

▷ tilt to side, high position

Ċ presign for the head

In this analysis H_1 can be used to refer to the side tilt movement of the head.

An etic element of movement is present in head kineme, H_1, which will not be given a componential notation because it is not

126 contrastive. This is an accent which can be used in movements of the
128 head, legs, and arms. It is usually used on the beat and often marks
535 the end of a movement. The heaviness of accent varies with the individual. Accent is written in Labanotation as '▽'. When it is filled in '▼' it signifies a heavier accent. Adding an accent changes the manner of performing a movement. But it is not a kineme because its presence or absence does not make a movement different. Accents usually occur in specific places in certain movements. Failure to use the accent does not make the movement wrong but is usually on the order of an allo-kine.

535 Leg Kinemes

The second part of the body with emic significance is the legs. The letter 'L' abbreviates 'legs.' Important in Tongan dance is how the body is being supported and what the supports are doing. In Tongan dance legs do only a specified number of things: they fold cross-legged, they bend down and up, they step, they turn, and they rotate.

Labanotation symbols are based on rectangles and it is easiest
126
128 to understand their use in the case of leg movements. There are three levels of support--normal, middle, and high. These levels are incorporated into the symbol. Normal level is designated by a dot in the middle of the symbol; low level, in which the knees are bent, by a shaded symbol; and high level, in which one would be standing on

126 one's toes, by slanting lines (as in the triangular symbol in Figure
128 4.1). In Tongan dance only normal and low levels are significant for
[535] leg movements so only the dot and shaded symbol will be used.

535 The Labanotation staff has two columns to the right and two
126 columns to the left of a center line for notating leg movements.
128 The center columns are for the supports, which in Tongan dance is
either the legs or, in a sitting dance, the hips. The second columns
from the center line are for leg gestures.

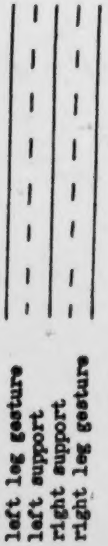


Figure 4.2. Leg columns of Labanotation staff.

535 In Tongan dance there are eleven significant variations of leg movement. They are enumerated below. For simplicity the Labanotation will be for the right leg, but the movements can be performed with either leg.

L_1, the first leg kineme, is a forward step in normal or middle
[126] level. Note how the rectangle is altered to point forward—that is,
[128] to the top of the page. There are two allo-kines noted. Allo-kine a is a normal or walking size step. Allo-kine b is a very short step. In Labanotation an '×' preface to the rectangle indicates a short step. The length of the step is not significant, and can vary from a walking size step to a step of only a few inches. In the photograph my informant has just stepped forward and is preparing to lift her back foot for another forward step.

L_1

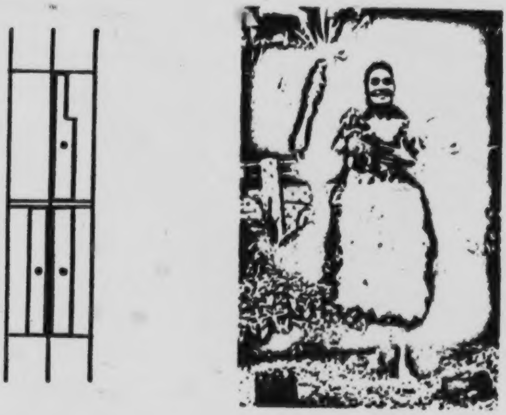


Figure 4.3. Kineme L_1, allo-kine a, normal size step forward.

535

L_1

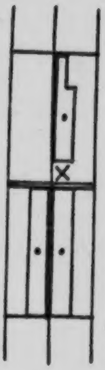


Figure 4.4. Kineme L_1, allo-kine b, short step forward.

[126] [128] L_2 is a backward step in normal or middle level. Note that the rectangle points backwards. Again, there are two allo-kines showing that the length of the step is not emically significant.

L_2

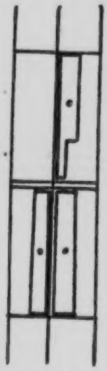


Figure 4.5. Kineme L_2, allo-kine a, a normal size step backward.

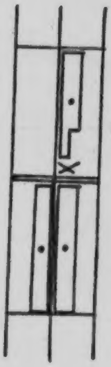


Figure 4.6. Kineme L_2, allo-kine b, a short step backward.

535 L_3 is a step in 'place.' 'Place' in Labanotation terms means to the center of weight. Thus, a step in 'place' can be made without moving the center of weight as in allo-kine a where the foot is lifted and then steps in the same place. Or a step in 'place' or 'to place' can be made to where the center of weight is. In allo-kine b after a forward step is taken, the other foot is brought to the center of weight or to 'place.' In allo-kine c the foot is brought to the center of weight after a backward step. In allo-kine d after taking a step to the left with the left foot '◁', the right foot steps left in order to bring it to the center of weight or to 'place.'
[126] 'Place' or to the center of weight is symbolized in Labanotation by
[128] '⊡'. In the photograph my informant is just about to put her foot down in 'place.'

This kineme is an ambigious one, not agree upon by my informants. Some informants classed these four allo-kines together, the significant dimension being that the feet are brought together and the weight taken by both feet. Others considered only allo-kine a, stepping in place, to belong here, while allo-kine b should be a part of L_1, allo-kine c should be part of L_2, and allo-kine d should be part of L_4, the significant dimensions being a move forward, backward, or sideward.

535

L_3

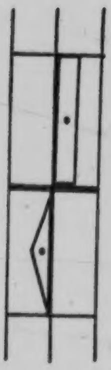


Figure 4.10. Kineme L_3, allo-kine d, after a left side step, right foot steps in place.

[126]
[128] L_4 is a side step in middle level. Note that the rectangle becomes a triangle pointing to the direction in which it is going to move. There are two allo-kines. Allo-kine a is a normal size step about 12-15 inches. Allo-kine b is a small step, often only 2 inches. The size of the step is not emically significant.

535 L_4

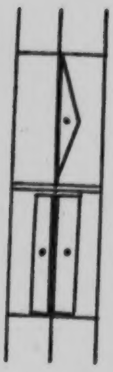


Figure 4.11. Kineme L_4, allo-kine a, a normal size step to the side.

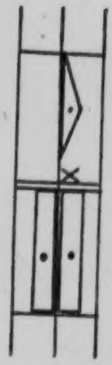


Figure 4.12. Kineme L_4, allo-kine b, a short step to the side.

L_5 is a jump with both feet which can be performed to the front,
595 to the back, or to either side. In Labanotation when no symbols
126 appear in the support (center) columns it means that the body is in
128 the air. In performing a jump the preparation is shown below the double line. The supports bend (indicated by an '×' prefix in the leg gesture column), they lift from the ground (there is nothing in the support column), they return to the ground (in these examples after the double line) which in Tongan dance is on the beat.

535 [126] [128] L_7 is a turn. This is accomplished in the Tongan movement system by turning the body and then stepping. The symbol for clockwise rotation is '▱' while '|' means it is a half turn, or '—' means a quarter turn. Allo-kine a consists of turning the body one quarter turn and stepping slightly forward in the direction of the turn. Allo-kine b consists of stepping forward and making a half-turn on that foot. Allo-kine c consists of stepping in place and making a full turn while the other lower leg is raised to the back. This kineme is an ambigious one. Informants usually say there is only one kind of turn, meaning allo-kine a, which is the traditional type of turn. Allo-kines b and c are used mainly in tau'olunga, which is a recent dance genre.

L_7.

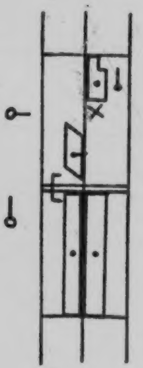


Figure 4.18. Kineme L_7, allo-kine a, body turns one quarter and foot steps slightly forward.

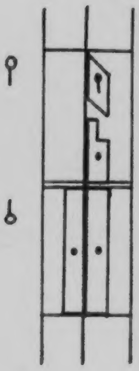


Figure 4.19. Kineme L_7, allo-kine b, the right foot steps forward and the body turns one half turn left.

535 L_7

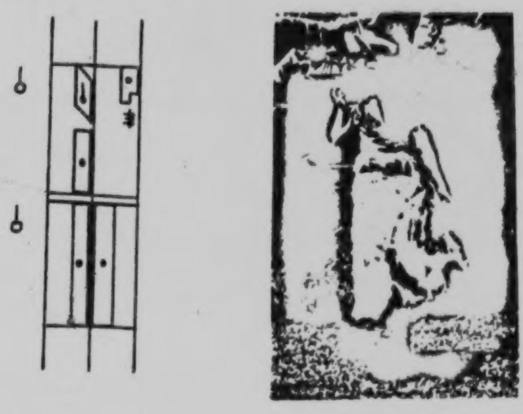


Figure 4.20. Kineme L_7, allo-kine c, the left foot steps in place, the body turns one whole turn left, while the right lower leg is raised backward.

L_8 is a rotation of the lower leg that moves the heels out
and in. This is usually used to mark time when no other foot
535 kinemes are used. It is notated in the leg gesture column (second
126 column from the center) because the legs rotate but the supports do
128 not move. A hold sign 'o', is placed in the support column to
show that there is no movement or change in weight distribution.
535 Sometimes this lower leg rotation is very small and scarcely perceptible to the observer. It is important to the dancer, however, because the movement helps him to feel the pulse of the music.

535 L_8

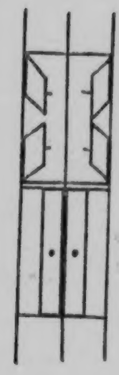


Figure 4.21. Kineme L_8, the heels are moved out and in to mark time.

L_9 consists of a quick lifting of the foot by a bend of the knee.
One foot steps and receives the weight and the other knee quickly
535 bends. The knee bending is notated in the leg gesture column. The
126 ·*· designates the amount of flexion of the knee. In the photo-
128
graph in Figure 4.22. the dancer on the left is just about to take
535 a forward step while the dancer on the right has just lifted her
left leg with a quick bend of the knee.

535 L_{11} is the cross-legged sitting position. In the Tongan version of sitting cross-legged the upper legs should be nearly parallel, especially for women. The left lower leg is placed to the back right diagonal forming an acute angle at the knee. The right lower leg is forward left diagonal forming a 90° or larger angle at the knee. The
535 right lower leg is thus in front of the left leg. The hips are
126 indicated by '+'--note that this symbol is in the support column
128 where the stepping of the feet was in the previous kinemes. The '‡' designates the upper leg; '≢' designates the lower leg; '▯' designates the back right diagonal; '▯' designates the forward left diagonal; '—o—' means 'in front of'; '⌒' means a touch. While in this position, the right foot, '≢', marks time by moving up and down.

535

L_{11}

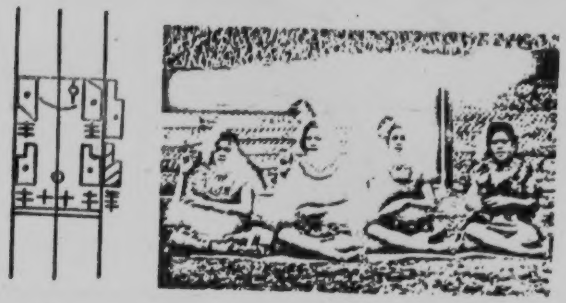


Figure 4.27. Kineme L_{11}, cross-legged sitting position. The girl on the right of the photograph is in the 'correct' sitting position. The other girls have their legs too far to the sides. This is quite often the case with young girls. Men also do not keep their upper legs as straight forward as do the women.

535 Lower Arm Rotation

The first and most distinctive kineme in arm movements of Tongan dance is the rotation of the lower arm. It is this movement, so often repeated, that is perhaps the most distinguishing characteristic of Tongan dance. This kineme will be notated R_1. 'R' abbreviates 'rotation.'

R_1

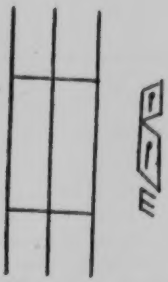


Figure 4.28. Kineme R_1, the lower arm rotates.

535 The symbol for the lower arm is '⋲'. The clockwise rotation
126 symbol is '▱' (see also L_7 and L_8 above); and '▱' is counter-
128 clockwise. As in the case of leg movement, a half turn is notated
'⫯'. I have notated this turn as a half turn, however, the amount
535 varies from one half to one quarter. The half turn is at the wrist
end of the lower arm--it is impossible to turn the elbow end of the
lower arm a half turn.

535 Wrist Flexion and Extension

The second type of arm kineme is flexion and extension of the wrist. In many arm movements there is a wrist flexion which follows naturally from the movement of the hand and these need not be notated. The two wrist kinemes noted are those where there is a definite emphasis on wrist motion and which are significant in the movement system. When the wrist is relaxed with no flexion or extension it can be said to be in 'normal' position. The two kinemes begin from this normal position. 'W' abbreviates 'wrist.'

W_1 is a kineme in which the wrist is extended--that is, bent
[126] backward. The amount varies from slightly extended, 'И' to as far
[128] back as is comfortably possible, 'И̷'.

W_1

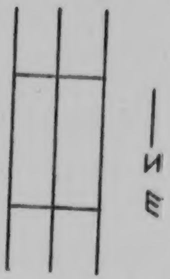


Figure 4.30. Kineme W_1, allo-kine a, the wrist extends part way back.

535 W_1

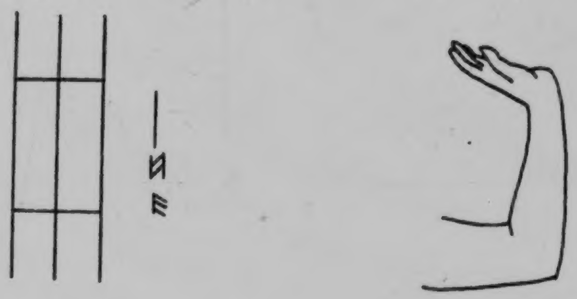


Figure 4.31. Kineme W_1, allo-kine b, the wrist extends fully backward.

W_2 is a flexion of the wrist that carries the hand forward.
535 The amount varies from slightly flexed, '×', to flexed fully forward,
126 '⋇'. (Note that 'Ɛ' is the same symbol as for the lower arm.
128 There should be no confusion here as the lower arm cannot bend. It
is obvious from context that 'Ɛ' in this case refers to the wrist.)

535 W_2

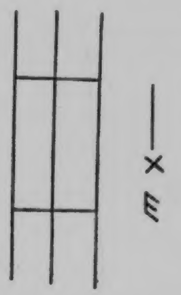


Figure 4.32. Kineme W_2, allo-kine a, the wrist flexes part way forward.

535 P_1 is a kineme in which the palm faces forward or away from the
535 body. Palm facing is notated '⊡'. Note that the forward pointing
126 rectangle, '▯', is the same symbol as used for forward steps (L_1
128 above). This symbol is used throughout the Labanotation system to
indicate forward.

535

P_1

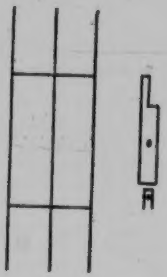


Figure 4.34. Kineme P_1, the palm faces forward.

535 P_2 is a kineme in which the palm faces backward or toward the body. Note that the backward pointing rectangle indicates facing back. [126] [128]

P_2

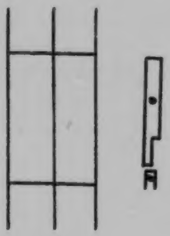


Figure 4.35. Kineme P_2, the palm faces backward.

P_3 is a kineme in which the palm faces upward. This is indicated by a 'place' symbol with slanting lines, '▨', meaning it faces 'place high.' [126] [128]

P_3

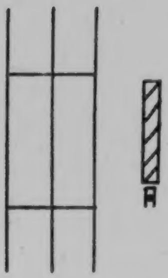


Figure 4.36. Kineme P_3, the palm faces upward.

535 P_4 is a kineme in which the palm faces down. This is indicated [126] [128] by a 'place' symbol that is shaded in, '▮', meaning it faces 'place low.'

P_4

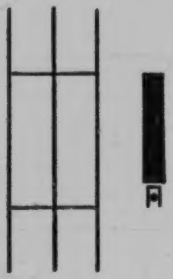


Figure 4.37. Kineme P_4, the palm faces down.

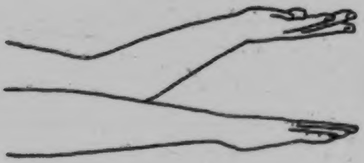


Figure 4.38. The palms face up, P_3, and down, P_4.

535 P_5 is a kineme in which the palm faces to the side. Side is
● [126] [128] indicated by a triangle pointing to the side indicated.

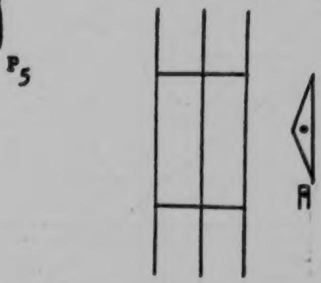


Figure 4.39. Kineme P_5, the right hand faces to the left.

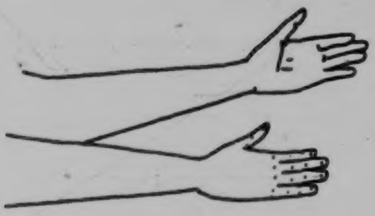


Figure 4.40. The hands face to the sides.

Finger Positions

535 The fourth group of kinemes is the flexion and extension of the fingers. There are eight finger kinemes that are significant or emic in Tongan dance. Although physiologically some of these kinemes are really a flexion of the palm, the Tongans contrast them with other finger positions--thus, they will be referred to here as finger kinemes. 'F' abbreviates 'fingers.'

535
126
128

F_1 is a kineme in which the fingers are extended and flat. The symbol for fingers is '⊧'. There are two allo-kines. Allo-kine a is a straight position of the fingers, this is designated by a single extension symbol, 'И'. In allo-kine b the fingers are slightly extended backward, this is designated by a double extension symbol, 'Ѝ'. Allo-kine b is used when opening the fingers from another F

535 kineme and usually is used to mark the beat. In kineme F_1 the thumb can either be held parallel with the fingers as in the drawing in Figure 4.41. or it can be slightly opposed. When the thumb must be opposed this is considered a different kineme, F_7.

F_1

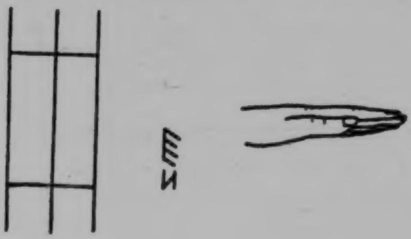


Figure 4.41. Kineme F_1, allo-kine a, fingers flat in relaxed position.

F_1

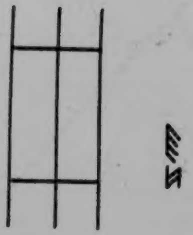


Figure 4.42. Kineme F_1, allo-kine b, fingers extended backward.

F_2 is a kineme in which the fingers are slightly flexed.

[126] [128] ● Flexion in Labanotation is indicated by '×'; '×' indicates slight flexion; '✳' indicates flexion that forms approximately a circle; '✱' indicates flexion in which the fingers are fully flexed forming a fist. Other degrees of flexion and extension of fingers are physiologically possible and Labanotation recognizes them. In Tongan dance, however, other degrees are not significant categories.

F_2

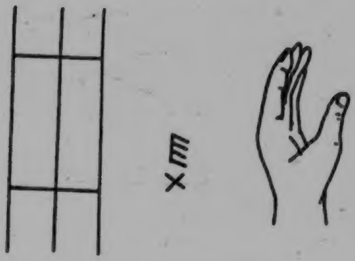
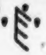
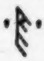


Figure 4.43. Kineme F_2, fingers slightly bent.

535 F_5 is a kineme in which the fingers are flexed to form a fist, but the thumb is extended. In this case it is necessary to indicate [126] the fingers individually. This is done by placing dots on the [128] general finger sign to indicate the fingers referred to. For example, '' indicates the thumb, '' indicates the first finger, and so on.

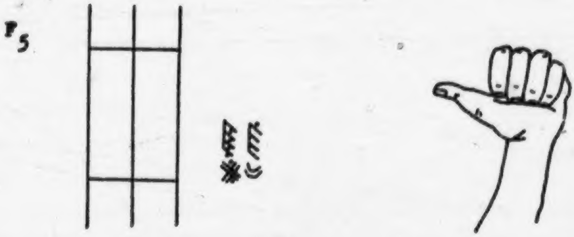


Figure 4.46. Kineme F_5, fingers form a fist and thumb is extended.

F_6 is a kineme in which the thumb and index finger are extended and the other three fingers are fully flexed.

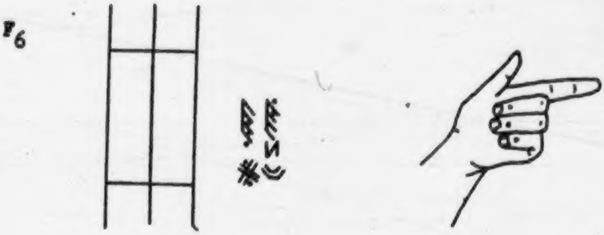


Figure 4.47. Kineme F_6, pointing position.

535 F_7 is a kineme in which the thumb and fingers are extended in opposition to each other. The defining feature of this kineme is that the thumb is extended at a 90° angle to the fingers, which distinguishes it from F_1.

F_7

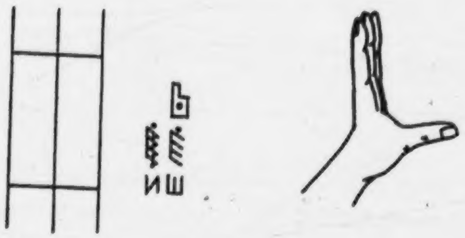


Figure 4.48. Kineme F_7, thumb extended at 90° angle to fingers.

[126] [128] ● F_8 is a kineme in which the fingers and thumb are extended in opposition to each other and the palm is flexed, ' '. The position is the same as F_7 except for the flexion of the palm.

F_8

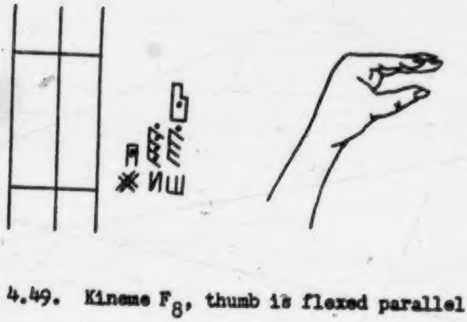


Figure 4.49. Kineme F_8, thumb is flexed parallel to fingers.

535 A_2 is an arm kineme in which the arm is raised to the front.
Labanotation has no single symbol for this position, therefore it is
535
126 necessary to write a position between the two closest ones. In this
128 case, A_2 is between the Labanotation symbols for forward middle (A_1)
and that for forward high (which is not a significant category in
535 Tongan dance).

A_2

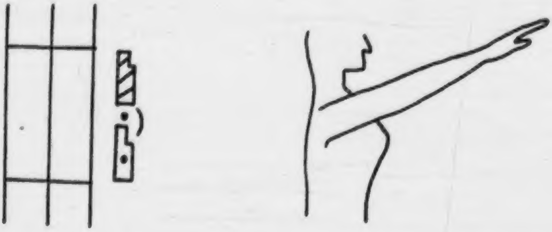


Figure 4.52. Kineme A_2, arm raised forward.

A_3 is an arm kineme in which the arm is in a forward position but in low level.

A_3

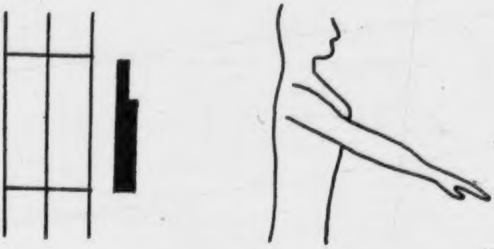


Figure 4.53. Kineme A_3, allo-kine a, arm is forward low.

535 **Touching Kinemes**

The last group of arm movements significant in Tongan dance

535 involves touching or brushing. 'T' abbreviates 'touching.' T_1

126 designates touching and T_2 designates brushing. In Labanotation a

● 128 bow '⌒' is used to symbolize touching. By connecting the appropriate columns, the two ends of the bow show which parts of the body are touching. (A bow with broken lines '⌒' shows that two body parts are related to each other or near each other but not actually touching.)

T_1 is a kineme that consists of touching the hand to a part of the body. In the example notated the hands, '⋿', touch.

535 T_1

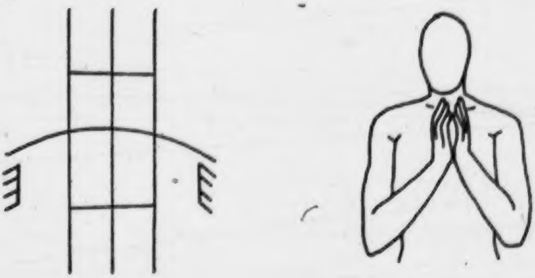


Figure 4.78. Kineme T_1, a touch. (In this case of the hands.)

61: Kaeppler E-5 (1964-1967) 1977 OU9 Tonga OU9

CHAPTER V

MORPHOKINES: MEANINGFUL MOVEMENTS IN TONGAN DANCE

535 ANALOGY WITH MORPHEMES

128 In Chapter IV the significant kinemes of Tongan dance are listed and the etic nature of one or more allo-kine for each are notated. There are more allo-kines which could be listed, but they seem unnecessary at this point because they fall within the range of variation of those presented. Kinemes like phonemes, are largely unconscious as separate entities to the people who perform them. Though I have purported them to be significant to the people themselves, it is I, not they, that have abstracted them into a formal system. If a Tongan were given a kineme chart (or a phoneme chart) he would have to be convinced that it represents what happens when he dances (or speaks), because the kinemes individually (or phonemes individually) have no meaning.

535 121 In this Chapter a further analogy will be drawn between the structure of dance and the structure of language. As the material presented in the last Chapter was compared to a phonemic description of a language, the material presented in this Chapter purports to be comparable to a morphemic description of a language. The unit of movement comparable to a morpheme will here be termed a morphokine, meaning the 'form, shape, or structure of movement.' Morphokine can be defined as 'the smallest unit that has meaning in the structure of the movement system.' This does not imply that morphokines must

[p. 103]

61: Kaeppler E-5 (1964-1967) 1977 OU9 Tonga OU9

535 The first objective in identifying language morphemes is "to
121 segment the corpus--that is, to divide it into portions, each of which represents a single morpheme; and to class these segments together into morphemes" (Gleason 1955, p. 65). In this study of Tongan dance, segmenting and classing of the raw data proceeded
535 simultaneously. The results are listed below. Doubtless there are
121 other ways in which the data could be grouped. The classes presented,
128 however, seem most economic and systematic, and are able to account for all the data. No doubt there are morphokines that are not included in my corpus, but I feel quite certain that they will fit into the class system devised.

535 INTERNAL STRUCTURE OF MORPHOKINES

By the internal structure of morphokines I mean the sequence of kinemes that make up a recognized movement. Some kinemes are motions (e.g. rotation of lower arm); others are basically positions with the motion of getting from one position to another understood. Morphokines, as here described, combine kinemes--whether position or motion into flowing movements that have a definite beginning and end. A morphokine may consist of a single kineme, a kineme repeated one or more times, or a combination of kinemes. Morphokines will be abbreviated 'M'. When a morphokine consists of a single kineme, its kineme designation will be used to avoid unnecessary duplication.

The movements deriving from the three sections of the body significant in Tongan dance can be considered at the highest level

535 of abstraction as classes of morphokines and they will here be treated one by one. Morphokines of the hands and arms will be abbreviated
535
128 M.I. Morphokines of the legs will be abbreviated M.II. Morphokines of the head will be abbreviated M.III. Morphokines not classifiable in any of these groups will be abbreviated M.IV.

535 Arm and Hand Morphokines, M.I.

The morphokines of the arms and hands, M.I., can be divided into three groups or categories:

a. Nima (hand and lower arm) morphokines which can be performed in two or more arm position 'environments.' These will be abbreviated M.I.a.

b. Arm position 'environments' in which morphokines of category M.I.a. are performed. These will be abbreviated M.I.b.

c. Morphokines in which the arm position environment is integrally related. These will be abbreviated M.I.c.

The morphokines of group M.I.a. will be described first. The first morphokine of this group will be abbreviated M.I.a.1. The second morphokine will be M.I.a.2., and so on. Although these morphokines are made up of kinemes, it is not possible to say of a morphokine that it equals the total of the kinemes used in that morphokine, because not only the kinemes must be taken into consideration but also the sequence of the kinemes. Thus, a full description

538 the other phrases—that is, t^1 t^2 t^1 t^3 t^1 t^4 t^1, etc.[4] In the second
type of *fa'ahiula* structure each successive stanza of a poem alternates
with a recurring refrain. The third type of *fa'ahiula* is division
into sections.

In poetry of the first type, t^1 is usually "*tuli tuli tuli e.*"
Tongans say they do not understand the meaning of the phrase but it
implies 'pay attention to what I'm going to tell you.' In this
structure the phrases are not grouped into stanzas and the poetry
usually tells a *tala tupu'a*, 'legend,' of Tonga, such as the creation
535 of the skies. Choreography is very simple. During t^1 the performers
538 do *pasi*, *fu*, or some combination of *pasi* and *fu*. During t^2 t^3 t^4,
etc., the performers simply hit their right thigh or knee repeatedly,
as in the *pāpātenga* motif on page 230.

538 In the second type of *fa'ahiula* there are two kinds of stanzas
called *kupu* and *tau* which alternate. *Kupu* and *tau* might be compared
with the Western concept of verse and refrain. Each *kupu* has the same
melody but different words, the *tau* has the same melody and the same
535 words. The structure of the stanzas is A B A C A D etc.[5] In the two
538 examples in my collection with this type of structure, the hand move-
ments during the *kupu* consist of the repeated hitting of the knee,

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[128] [4] The letter t abbreviates 'text phrase'; the superscript indicates phrases in order of their occurrence. The text phrase numbers refer to one stanza only; each stanza beginning with t^1.

[128] [5] The capital letters designate stanzas which are sub-sections of the overall structure.

535 mana'ia which refers to a man who is irresistable. The ula poetry may
538 refer to either the dancing of, or the dancing for, these kinds of
people.

535 The movement structure has $X^1\ X^2\ X^1\ X^3\ X^1\ X^4\ X^1$ form.[6] Each X
538 here is equal to one stanza, that is, two phrases of poetry. The
533 association of words and movement is as follows:

Text phrase structure	t^1t^2	t^1t^2	t^1t^2	t^1t^2	t^1t^2
Melodic phrase structure	m^1m^2	m^1m^2	m^1m^2	m^1m^2	m^1m^2
Stanza structure	A	A	A	A	A
Movement structure	X^1	X^2	X^1	X^3	X^1

535 In the movement structure X^1 is always the vahe ula motif (p. 213). Vahe ula alternates as X^1 with other haka motifs as $X^2\ X^3\ X^4$, etc., selected from the following: 'haka,' for example, motif notated on p. 216; milolua, p. 220; tane, p. 221; kako, p. 219; si sia, p. 223; tuhu, p. 222; Sina vai tafae, p. 223; pasi, fu, for example, the variation on p. 229; and Tunotuna, p. 229. The structure of the ula never deviates from this, however, the order in which the haka motifs come in the $X^2\ X^3\ X^4\ X^5$ slots is up to the choreographer or the dancer.

The use of the va'e, 'feet and lower legs,' in the ula is very limited but very important. During the $X^2\ X^3\ X^4$ phrases, M.II.a.7. is invariably used. During the X^1 phrase, M.II.a.1. is usually used.

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[128] [6] The letter 'X' will be used to designate a movement phrase.

65: Urbanowicz E-4,5 (1970,1971) 1975 OU9 Tonga OU9

177 178 society merits closer consideration than 1850 for Tonga (Goldman 1970: xxviii).

178 554 [114] Utilizing 1800 as a reference date for Tonga, one has a dynamically operating and changing Polynesian society, with an elaborate system of rank (based on kinship ties) and status (based on kinship and achievement). Changes in the rank and status systems resulted from Western contact but these have not always been successfully analyzed or reported in ethnographic accounts.[3]

ABORIGINAL TONGA

643 644 554 There are four major titles in Tonga with which we are concerned: *Tu'i Tonga*, *Tu'i Ha'a Takalaua*, *Tu'i Kanokupolu*, and *Tamaha*. When the various missionaries arrived in the archipelago, they grasped part of the cultural system of ranking. The Wesleyan missionary Lawry recorded in his diary for September 13, 1823, that

> the following is the order in which the present Chiefs of the Friendly Islands rank, viz: –
> 1. Tooitonga [*Tu'i Tonga*]
> 2. Tooihatacalowa [*Tu'i Ha'a Takalaua*]
> 3. Tooicanacabooloo [*Tu'i Kanokupolu*]

Another Wesleyan missionary, John Thomas (in the archipelago from

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121 127 [114] [3] The only way in which a researcher can attempt a reconstruction of aboriginal culture is for that researcher to examine the earliest extant documentation pertaining to that culture and then make comparisons between the old information and new information gathered by contemporary field work. Urbanowicz (1972) provides a detailed explication of the methodology of the documentary research.

127 Ethnohistorical techniques were used to extract ethnographic information of the past from the documentary materials. Ethnohistory is thus the application of historical method to a body of documents specifically chosen for the construction of an historical ethnography (See Fenton 1962; Sturtevant 1966). The ethnohistorian focuses on the "ethno-" in the term, in presenting an ethnography of a given group of people; the "-history" refers not to the writing of history, but to the application of historical method to gather verifiable ethnographic facts of the past. Ethnohistory is not a study of change per se, although it eventually contributes to studies of change. The term ethnohistory as used by ethnographers is not synonymous with culture history, as the distinguished Pacific historian H. E. Maude has written (1971: 21).

121 128 Every ethnographer is, in essence, an ethnohistorian, since every ethnographer must read background material prior to beginning field work and must weigh and assess previous research reports; and every ethnohistorian is at heart an ethnographer, combining archival research with field work among the contemporary people. This is why I went to Tonga. Also see Cohn 1968; Dodge 1968; and Lurie 1961. Original orthography has been maintained throughout this paper.

Table VI

Tongatapu

Diet, Possessions and Club Attendance

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	House Types				
	Large Wooden %	Small Wooden %	Indigenous %	Composite %	Average
Diet					
Three meals daily	75	52	28	43	44.5
Buy Imported food	56	31	31	40	35.4
Possessions					
Two or more beds	100	55	12	27	42.4
Motorised vehicle	44	17	0	7	14.2
Horce or Cart	38	38	34	67	43.5
Club Attendance					
Fale Hiva	69	52	53	60	56.6
Fale Kava	31	66	44	50	49.5
Fale Koko'anga	19	28	41	57	38.4
Total Households	16	29	32	30	107

Source: Household Questionnaire

Notes: The answers on diet refer to activities occurring at least three times weekly; those on club attendance involved at least one person in the household. Both types of wooden house correspond with "exotic"; the information on the larger houses is included for later discussion. [128]

sometimes beyond Tonga. The fakafefine, however, are not typical. The unit of organisation (for most Tongans involved in the bazaar sector) is the family or people of the immediate neighbourhood. Rarely does involvement in the bazaar provide the sole or main source of income for the families concerned. It provides work and income for some members of the family while others are involved in agriculture and paid employment. Participation in these three areas of economic activity involve the total labour force of the family and ensure its greatest chance of economic well-being. Nevertheless, the bazaar sector in Nuku'alofa seems likely to expand as more wealth enters the kingdom and the indigenous market expands.[24]

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nuku'alofa : readapted or transformed ?

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McGee has suggested that "Some folk societies ... are

121 readapted rather than transformed."[25] The point is re-emphasised by
Franklin who views peasant society as a "residual system" within a
larger capitalist economy and points to the resilience of the
peasantry.[26] Gundar Frank introduces a new dimension which, if
accepted, points to a prolonged existence for peasant societies and
systems. He suggests that underdevelopment in some countries is the
obverse of development in others, both being part of a "single process
of capitalist development".[27] The modern commentator often finds
difficulty in accepting that non-western societies may not choose
western forms in the final working out of their urban and rural
futures but, if we accept Frank's views, the peasantry appear to have
an assured future in underdeveloped countries. Franklin's observation
that the peasantry shows remarkable resilience in adverse conditions
typical of underdeveloped countries seems to support this.
Both writers would appear to agree that the increased penetration of
capitalism does not necessarily eliminate peasant systems of
production—or, presumably, peasant-like attitudes within the broader
128 society. At this point it would therefore seem appropriate to
consider those reasonably well-off families living in Nuku'alofa
511 (those living in "large wooden" houses (see Table VI)) whose paid
184 employment makes them independent of a supplementary income from
agriculture and who, for purely economic reasons, would do better by
opting out of kin obligations.

369 How far have these urbanised and often superficially
westernised families rejected activities common to others in the town?
184 They are by definition less involved in the peasant economic system
but they remain very much a part of the traditional society. All
attitudes to important events in the life cycle, such as birth, the
celebration of the first birthday, circumcision, courtship, marriage
and death, are retained. Their attitudes towards the organisation of
society, the hierarchy of king, nobles, church, family and authority
[353] generally, are also retained. The physical organisation of their
houses is the same in spite of a greater abundance of western articles
[352] and furniture. It is not uncommon, for example, for beds to be used
for the storage of special mats while the people sleep on the floor.
In one case the adults slept on mats in a traditional _fale_ leaving the
comforts of their modern house for the convenience of others.
[556] Sleeping, eating, cooking and washing units are kept apart, kava
remains an important ceremonial and social drink, the stone _umu_ is
still used, tapa and mats remain symbols of wealth and prestige and
the wearing of the _ta'ovala_ and _kiekie_ remain as signs of the well
dressed. Participation in the _kautaha koko'anga_ is less evident but
these families are keen recipients of "gifts" made by such activities.
They are actively involved in the _fale hiva_ which, in this respect, is
a rallying point for established and status conscious families. The
closer these people become to the apex of society, the more committed

133 Kao (not shown on the map), while Vava'u is a compact and comparatively hilly group, its surface made up of a series of terraces.
134 The most common soil type on all these islands is a fertile, friable soil, termed *kelefatu* by Tongans, which varies in texture from a loamy sand to a clay. Although almost always underlain by coral limestone, the main parent material of this soil is volcanic ash, which gives it a mineral fertility very much higher than is usual for soils on raised limestone islands. The other main soil type is *tou'one*, a sandy and less fertile soil found at low elevations close to the sea. Although present in all the islands of raised limestone formation it is proportionately most important in Ha'apai, where it may occupy up to half the area of some of the settled islands. It appears to be derived entirely from coral sand or limestone and decayed vegetable matter, with perhaps the addition of small amounts of volcanic ash and pumice.

132 Rainfall is generally sufficient for good plant growth, with the northern group, Vava'u, having a more humid climate than the islands further south. Mean annual rainfall increases from 1,700mm at Nuku'alofa (Tongatapu) to 1,780mm at Pangai (Ha'apai) and 2,180mm at Neiafu (Vava'u), while the percentage of dry months in the rainfall record, using Mohr's definition of a dry month (Mohr, 1944, 53–8), decreases from 23 per cent and 25 per cent respectively in
132 Tongatapu and Ha'apai to 16 per cent in Vava'u. This combination
133 of fertile, volcanically-derived soils, generally adequate but not
134 excessive rainfall, and easy topography provides good conditions for crop production throughout all the main islands of Tonga.

POPULATION DISTRIBUTION AND DENSITY

161 The total population of Tonga in the 1966 Census was 77,429
128 persons, distributed as shown in Table 7.1. In the table Tongatapu
162 and Vava'u have each been divided into two districts of contrasting density, and in Tongatapu an attempt has been made to obtain a realistic rural population density figure for the central and eastern district by subtracting both the population of the main town, Nuku'alofa, and the area of agricultural land surrounding the town
161 from the calculation. Areas of high population density are the western
162 tip of Tongatapu, and most of Ha'apai (where individual islands have densities ranging from 121 to 410/km^2). Densities are moderate in central and eastern Tongatapu (ranging from 96 to 159/km^2) and

67: Maude K-5 (1961) 1973 OU9 Tonga OU9

161 **Table 7.1** Crude population densities by districts and island groups, 1931 and 1966 (Tonga)
162

District or group	Population 1966	Persons/km² 1931	Persons/km² 1966
Nuku'alofa*	18,686		
Western Tongatapu	2,318	112	210
Central and eastern Tongatapu	26,916	31	126
'Eua	3,391	4	39
Ha'apai	10,591	122	202
Southern and eastern Vava'u	10,668	87	149
Western Vava'u	2,865	32	66
Niuatoputapu and	1,994	37	37

[128] * Includes some of the villages around Nuku'alofa whose lands cannot be separated from those of the town.

in southern and eastern Vava'u, and low in 'Eua and western Vava'u.

Two broad explanations can be offered for this pattern, one static and the other dynamic. As Table 7.1 demonstrates, the contrast between western Tongatapu and Ha'apai, and the rest of Tonga, was much more marked in the past than at present, and it can be shown to date back to at least the nineteenth century. These long-established differences in population density cannot be explained by
161 differences in land quality. Climatic and soil conditions in western
162 Tongatapu and Ha'apai appear to be similar to those in central and
eastern Tongatapu, although in Ha'apai the less fertile *tou'one* soil
134 type occupies a higher percentage of the total land area than in
Tongatapu. And while there may be some soil differences between western and eastern Vava'u which could help to explain the contrast
in population densities there, in the absence of a soil survey there is
161 insufficient evidence with which to test this possibility.* The main
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162 * H. S. Gibbs, in a paper presented to the 1971 Pacific Science Congress in Canberra on the results of a 1967 soil survey, states that the main difference in soil types in Tongatapu is between yellowish-brown sticky clays in the eastern part of the island, and reddish-brown friable clays in the rest of the island. This pattern of soil types does not correlate with the pattern of population densities.

67: Maude K-5 (1961) 1973 OU9 Tonga OU9

161

explanation seems to lie in the relationship between settlement and 162
marine resources. In the past, fishing and reef-collecting were 361
important subsistence activities along with food cropping, although [226]
in recent years they have declined as canned meat and fish have
become more easily obtainable. Settlement therefore tended to con- [178]
centrate along the most productive shores; in Tongatapu, for
instance, over 70 per cent of the villages are located along the low
northern shore and around the lagoon, the areas considered to be
the most productive in seafoods, while in Ha'apai, which has
particularly extensive reefs and fishing grounds, only the very
smallest islands or those without *kelefatu* soils have failed to attract
settlement. Conversely, in 'Eua the surrounding reef is narrow and [133]
sometimes dangerous and the offshore waters deep and unsheltered,
and until recently the island, despite its size, had only a tiny popula-
tion. Population densities were therefore higher where shores and
reefs were productive but the land area limited, as in western
Tongatapu, Ha'apai and parts of southern and eastern Vava'u, than
where productive shores were backed by extensive areas of land, as
in central and eastern Tongatapu. The lowest population densities
were along unproductive shores, as in 'Eua, western Vava'u and
parts of the south coast of Tongatapu.

This subsistence-orientated distribution of population in the past 166
has by now been considerably modified by internal migration, which
constitutes the second broad explanation of the present population
pattern. Internal migration is largely directed towards Nuku'alofa,
the capital, central and eastern Tongatapu and 'Eua, and away from
western Tongatapu, Ha'apai, Vava'u and Niuatoputapu. It reflects [184]
movement in search of employment, education, land for cash crop-
ping, and the attractions of urban life and is a result of the growing
regional inequalities in development and opportunities within
Tonga. Further discussion of migration, however, will be left to a
later section, where it is examined in the context of the response of
Tongans to population pressure. The main effect of internal migra- 166
tion on the earlier pattern of population distribution has been to 162
reduce the contrasts between central and eastern Tongatapu and the
long standing areas of high population density, but as migration 161
appears to be continuing at a high rate further changes in population
distribution can be expected.

Having outlined the main elements of land resources and popu- 128
lation distribution we may now turn to the question of population

67: Maude K-5 (1961) 1973 OU9 Tonga OU9

128 pressure. As the term is used here, 'population pressure' implies the [121] existence of stress in the man/land system resulting from increases in population density, stress being indicated by a deterioration in some of the variables in the system, such as a decline in the nutrient status of the soil or an increase in land disputes (Farmer, 1954; Lea, 1964, 1965; Street, 1969; Vermeer 1970). The following sections therefore examine three aspects of the man/land system—land tenure, the agricultural system, and the human perception of and reponse to population pressure—to see if there are any indications of stress. Analysis of the effect of population density is mostly through a comparison of areas of different density, chosen so that other independent variables are reasonably constant. For example, study of the effect of population density on the food cropping system is confined to Tongatapu and Ha'apai, for within these two groups climatic and soil conditions are broadly similar, but are different to those in Vava'u.

LAND TENURE

423 The land-tenure system of Tonga is highly distinctive, differing in a 171 number of respects from the systems found in other parts of the Pacific Islands. Every taxpayer (every male aged 16 years and over) 423 is entitled by law to an allotment of 3·2ha of agricultural land, known as a tax allotment, as well as a small piece of land in a village 423 or town for his house. These allotments are granted to individuals as a lifetime, inheritable leasehold from the Government, if on a 427 Government estate, or from the title-holder on a chiefly estate, and no one may legally hold more than one allotment of each type.

423 In reality, however, many Tongan men do not have the allotment to which they are entitled. In the 1966 Census only 8,305 or 41·6 423 per cent of all Tongan males aged 16 and over stated that they had 162 a tax allotment. Although this figure conflicts with the 1966 Report 127 of the Lands and Survey Department, which recorded the total number of tax allotment holders in December 1966 as 12,517 (G. Rogers, 1969, 216), this latter figure is almost certainly incorrect. 423 A more detailed impression of landholding is given in Table 7.2, 128 which presents the results of a number of village studies. The table shows that in only one village, Niutoua, did over half the taxpayers have their legal entitlement, while in most villages a large proportion 592 of taxpayers and households had no land at all. It should be noted

423
427 villager finds land borrowing for cash production an increasing
problem. Land cannot be borrowed for planting coconuts, which
178 rank about equal with bananas as a cash crop, and palms on an
241 allotment are the property of the landholder, regardless of who
423 planted them. A common practice for those without land is to obtain
245 permission to collect one or two cartloads of coconuts for copra-
427 making from the allotment of a relative or close friend, and for this
no return is given. Another arrangement found, especially between
non-relatives and where the landholder is absent, is for the cash
received for the copra to be shared half-and-half.

423 The effect of landholding on cash-crop incomes is shown in
511 Table 7.3, which presents data from the household survey of four
Tongatapu villages mentioned in an earlier section. The inability of
592 the social system and its customary obligations to even out inequalities in landholding is shown in the fact that households without land had only half the income per capita or per adult male of households with a full-sized allotment. On the other hand households with two allotments did not have higher incomes per head than single-allotment households, for although total income was higher these households were larger and had more adult males.*

423 The main conclusion that can be drawn from this discussion is
that the present land-tenure system, although it cannot provide land
182 for every household, is still able to cope with the subsistence needs
178 of the people, but is less able to cope with the rising demand for land
241 for cash cropping. The increasing difficulty of borrowing land for growing cash crops and the trend towards the payment of rentals for land both point to pressure within the system. This pressure, however, is as much the result of the growing commercialization of Tongan agriculture as of population increase alone.

THE AGRICULTURAL SYSTEM

241 Tongan agriculture is based on a bush fallowing system† for the cultivation of tubers, the main food crops being yams, taro, cassava, sweet potato, bananas and plantains. After clearing and burning, a plot is cropped for two to about five years and then bush fallowed for

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[128] * The number of households in the survey with allotments smaller than 2·7 ha was too few for useful analysis.

† The term 'bush fallowing' is here used to describe a form of shifting cultivation in which the fallow period is short.

433 The above evidence points tentatively to mild symptoms of
182 economic stress in areas of high population density. Land appears to
have become a limiting factor in production given the present level
of agricultural technology, but at population densities which vary
according to the crop; the population density at which *per capita*
banana production begins to decline, for instance, is higher than
that at which *per capita* copra production is affected, because bananas
[128] are a less land-extensive crop. Much more research, including
studies of nutrition, is needed before firm conclusions can be drawn.

POPULATION PRESSURE: PERCEPTION AND RESPONSE

121 To what extent are the pressures described in the last two sections
consciously felt by Tongans living in areas of high population
121 density? An attempt was made during field-work in western
Tongatapu, Ha'apai and eastern Vava'u to ascertain the degree to
124 which people felt hardship as a result of the shortage of land,
concentrating in particular on married men without allotments as
182 these were likely to suffer the most. We recall that even in densely-
511 settled areas most men without allotments found it fairly easy to
borrow land for cash cropping or collecting coconuts for copra-making.
Yet only a small proportion of the men interviewed seemed
to feel any hardship, all of these being men with large families to
support, and most considered their income sufficient for their
[124] essential needs. About 30 men were asked what they would do with
$A 1,000 if it were given to them; only one replied that he would
spend it on food and other necessities, the rest stating housing or
education for their children.

121 However, the degree to which population pressure is felt is better
182 determined by what men do than by what they say. There are a
number of possible reactions to population pressure, but only one of
166 these, migration, is really significant in Tonga. In land tenure, for
182 instance, there has as yet been no trend towards subdivision of
423 allotments, even though this is not prohibited should the legal heir
to the land be willing, and land disputes are rare. The only response
by those in control of land matters, the Government and the chiefs,
to the problems brought by population growth has been a belated
182 effort to complete the survey and allocation of allotments. In agri-
241 culture there has been a steady intensification of the system and a

and sharpen their memories. Whenever I recorded traditions, particularly 124
tales, as many versions as possible were taken, and detailed information
about each informant was kept, such as name, sex, age, position, rank and
his *Ha'a* or social group membership. This information proved useful later
in cross-checking the reliability of the various accounts.

I have already mentioned the great need for patience and tact in this type of work. Some of my informants, prompted perhaps partly by a desire to be regarded as *tangata 'ilo*, or by the idea of being quoted and acknowledged in the 'book', or perhaps by their fondness of hearing their voices on the tape recorder, gave long tales most of which were not worth recording. However I maintained a show of interest and listened patiently, recording what they had to say. I did this for two reasons: firstly, because they sometimes came up with something worthwhile; and secondly, if I had shown impatience or lack of interest, word might have spread and others who were perhaps better informants might become reluctant to offer information.

In Tonga no stringent measures were adopted to preserve accuracy in 173
oral traditions, and consequently they are prone to variation. In attempting 128
to arrive at the historical truth behind a number of conflicting versions I
noted the points at which they differed and checked these against other
evidence such as traditional sayings, place names, titles or any other information
which might support one or other account. For example there is a
controversy over the birthplace of King George Tupou I of Tonga. I have
discussed this in detail in my thesis and I shall merely refer here to a few
of the points of conflict in order to illustrate the method of cross-checking.
According to the traditions held by the people of Tongatapu and by Her 173
Majesty the late Queen Sālote, King George was born at Fualu on Tongatapu. 643
According to the traditions of the 'Uiha people of Ha'apai he was
born at Lifuka in Ha'apai. Both versions agree that his mother developed
a craving for human blood during her pregnancy and that this led her
father, Ma'afu of Vainī, to give instructions that the infant should be killed
at birth if he were a boy since he would be a danger to Tonga. In the
Tongatapu version, Tāufa'āhau's mother was taken to safety by a kinsman
to Kahoua, at Fualu, Tongatapu, and there gave birth to her son. The
Tongatapu people argue that the name given to the infant supports their
version because there is a place at Mu'a, on Tongatapu, which is called
'Āhau where the god Tāufa-i-tahi was supposed to reside, and they say this
was the origin of Tāufa'āhau. However the 'Uiha people of Ha'apai say
that Tāufa'āhau's mother was brought to 'Uiha. From there she was taken
to a small neighbouring island where grows a certain plant with a strong

173 643 sickening smell called *ngahu*. She complained of being sickened by its smell and from that time on the island became known as Luangahu (*lua*—sick or vomit; hence 'sickened by *ngahu*'). Later she was taken to another small island where she actually became sick and this place is still known as Lanhoko, meaning 'actually vomiting'. From there they went to yet another island where they spent the night and this time she awoke with pains. This island is still known as Ofolanga which means 'awaken by pains'. They hurried back to 'Uiha but could not get there in time, so they called at Lifuka and there, on the beach, she gave birth. This spot is called Niu'ui (*niu*—coconut, *ui*—call) which is supposed to be due to people calling out [124] for a coconut with which to prepare a baby food. The 'Uiha people's version was supported by Siola'ā Soakai, a very knowledgable *matāpule* at Pangai, Lifuka, who recalled a speech delivered by Tu'ipelehake, the grandfather of the late Queen Sālote, at the opening of the hospital which is now situated at Nui'ui, in which comment had been made on the appropriateness of a hospital site built upon the very spot where Tāufa'āhau's after- [776] birth was buried. It is interesting to note that the Ha'apai people are also able to account for the name Tāufa'āhau, since there was a local god named 173 Tāufa-i-tahi who lived at a place called 'Āhau on Lifuka as well. The discrepancies between these oral traditions may become a subject of heated [578] discussion at some of the national ceremonies when people from various parts of Tonga congregate. As a result people of one locality are usually aware of the existence of different versions elsewhere, even though they may not know the details, and in any case are usually convinced that their own version is the 'correct one'!

[121] Oral traditions can be of great value to the historian when they are used cautiously and efforts are made to detect the sources of distortion in them. In some instances they provided information about periods of Tongan his- 173 669 tory for which no written sources existed. One of these happened to be one of the most important wars in Tonga which was crucial in deciding the fate of the two rival royal dynasties, the *Tu'i Tonga* and the *Tu'i Kanokupolu*. It took place during a period when there were no Europeans such as William Mariner or Vason to give eye-witness accounts, although it was after these men's sojourn in Tonga. Thus the oral traditions were the only exist- 173 124 ing source of information on the events of 1825 and 1826. The different accounts of the war which I obtained were inevitably coloured by personal ● [128] and group biases. After recording several different versions, I was faced with the task of checking and cross-checking them in an attempt to arrive at what I believed to be closest to the truth.

173 669 The 'Uiha people played down considerably in their version of the war

[vi cont.]

114 to the publication of his unconnected philosophical observations made in the course of the voyage.

I must confess, it hurt me much, to see the chief intent of my father's mission defeated, and the public disappointed in their
114 expectations of a philosophical recital of facts. [vii] However, as
128 I had been appointed his assistant in the course of this expedition, I thought it incumbent upon me, at least to attempt to write such a narrative. Every consideration prompted me to undertake the task, which it was no longer in his power to perform. It was a duty we owed to the public; I had collected sufficient materials during the voyage, and I had as much good will to begin with, as any traveller that ever wrote, or any compiler that was ever bribed to mutilate a narrative. I was bound by no agreement whatsoever, and that to which my father had signed, did not make him answerable for my actions, nor in the most distant manner preclude his giving me assistance. Therefore in every important circumstance, I had leave to consult his journals, and have been enabled to draw up my narrative with the most scrupulous attention to historical truth.

114 Two anonymous publications on the subject of our voyage have already appeared; but the present age is too enlightened to credit marvellous histories, which would have disgusted even the romantic disposition of our ancestors. The incidents of our voyage are various, and deeply interesting, without the assistance of fiction. Our course has been by turns fertile, and barren of events; but as the industry of the labourer reaps some advantage from the most ungrateful soil, so the most dreary solitudes have yielded instruction to the inquisitive mind.

[ix cont.]

114 branches of science which we have studied, our turns of mind, our
heads and hearts have made a difference in our sensations, reflections,
114 and expressions. This disparity may have been rendered still more
128 evident, as I have slightly passed over all regulations relative to
the interior oeconomy of the ship and the crew: I have studiously
avoided nautical details both at sea and in harbour, nor ventured
to determine how often we reefed, or split a sail in a storm, how
many times we tacked to weather a point, and how often our refractory
bark disobeyed her Palinurus, and missed stays. The bearings and
distances of projecting capes, of peaks, hills, and hummocks, of bays,
harbours, ports, and coves~~, at~~ different hours of the day, have
likewise been in general omitted. These instructive particulars
114 thrive in the proper field of the navigator. The history of captain
Cook's first Voyage Round the World (3), was eagerly read by all
European nations, but incurred universal censure, I had almost said
contempt. It was the fate of that History, to be compiled by a person
who had not been on the voyage; and [x] to the frivolous observations,
the uninteresting digressions, and sophistical principles of this
writer, the ill-success of the work has been attributed; though few
are able to determine, with what degree of justice the blame is thrown
upon the compiler. The active life of captain Cook, and his indefatigable pursuits after discoveries, have made it impossible for
him to superintend the printing of his own Journals; and the public,
I am much afraid, must again converse with him by means of an
interpreter. His present performance will, in all probability, have

3. In the Endeavour, from 1768, to 1771, drawn up by Dr. John Hawkesworth.

[xi cont.]

114 unite into a whole; and the rage of hunting after facts soon rendered
them incapable of forming and resolving a single proposition; like
those minute enquirers, whose life is wholly spent in the anatomical
dissection of flies, from whence they never draw a single conclusion
for the use of mankind, or even of brutes. Besides this, two travellers
seldom saw the same object in the same manner, and each reported the
fact differently, according to his sensations, [xii] and his peculiar
mode of thinking. It was therefore necessary to be acquainted with the
114 observer, before any use could be made of his observations. The traveller
121 was no longer to trust to chance for a variety of occurrences, but to
make use of his first discovery, as the thread of Ariadne, by the help
of which he might guide his steps through the labyrinth of human knowledge.
It was therefore requisite that he should have penetration
sufficient to combine different facts, and to form general views from
thence, which might in some measure guide him to new discoveries, and
121 point out the proper objects of farther investigation. This was the
128 idea with which I embarked on the late voyage round the world, and
agreeably to which I have collected materials for the present
publication, as far as the time, my situation and abilities, would
permit. I have always endeavoured in this narrative to connect the
ideas arising from different occurrences, in order, if possible, to
throw more light upon the nature of the human mind, and to lift the
soul into that exalted station, from whence the extensive view must
128 "justify the ways of God to man." Whether I have succeeded or failed
in the attempt, remains to be decided; but the rectitude of the
intention cannot, I trust, be misconstrued. I have sometimes obeyed
the powerful dictates of my heart, and given voice to my feelings;

[xii cont.]

128 for, as I do not pretend to be free from the weaknesses common [xiii] to my fellow-creatures, it was necessary for every reader to know the colour of the glass through which I looked. Of this at least I am certain, that a gloomy livid tinge hath never clouded my sight. Accustomed to look on all the various tribes of men, as entitled to an equal share of my good will, and conscious, at the same time, of the rights which I possess in common with every individual among them, I have endeavoured to make my remarks with a retrospect to our general improvement and welfare; and neither attachment nor aversion to particular nations have influenced my praise or censure.

114 The degree of pleasure which may result from the perusal of a work, depends not only upon the variety of the subject, but likewise upon the purity and the graces of style. We must resign all pretensions to taste and sentiment, if we did not prefer a well-told tale to a lame and tedious narration. Of late, however, the just esteem in which an elegant diction is held, has been so far abused, that authors, relying on the fluency of their language, have paid no attention to the matter which they proposed, but deceived the public with a dry and uninstructive performance. Such writers may possibly acquire the approbation of some individuals.

"Who haunt Parnassus but to please their ear;"

But I am convinced the generality of readers are always just enough to overlook, in some measure, the defects of style, [xiv] in favour of

128 the novelty or usefulness of the subject. Without attempting to be curiously elegant, I have aimed at perspicuity; and having paid the strictest attention to this particular, I hope to meet with indulgence,

[xiv cont.]

128 if some errors of less moment have escaped my notice. It was owing to the repeated corrections of some valuable friends, to which I submitted my manuscript, that I sent it late to the press; but from the unexampled activity of the printer, I am enabled to lay my work before the public even sooner than I expected. The Chart, on which our line of circumnavigation is delineated, has been engraved by the ablest artist in that branch (5), and I constructed it with the most minute attention from the best authorities, which are mentioned in 000 its margin. After specifying the above particulars, of which I thought it my duty to apprize the reader, it only remains to discharge a promise made in the course of the work, respecting an account of the education and equipment of O-Maï in this country (6). (See vol. I. p 389.) In the narrow limits of a Preface I can only comprehend in a few lines the substance of what might furnish an entertaining volume. O-Maï has been considered either as remarkably [xv] stupid, or very intelligent, according to the different allowances which were made by those who judged of his abilities. His language, which is destitute of every harsh consonant and where every word ends in a vowel, had so little exercised his organs of speech, that they were wholly unfit to pronounce the more complicated English sounds; and this physical, or rather habitual defect, has too often been misconstrued. Upon his arrival in England, he was immediately introduced into genteel company, led to the most splendid entertainments of this great and luxurious metropolis, and presented at court amidst a brilliant

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5. Mr. W. Whitchurch, Pleasant-row, Islington.

6. The native of the Society Islands brought over by captain Furneaux in the Adventure, and vulgarly called Omiah.

[423 cont.]

175 running along the shore. The hills which were low, and not so high
175 above the level of the sea as the Isle of Wight, were agreeably
133 adorned with small clumps of trees scattered at some distance, and
137 the intermediate ground appeared covered with herbage, like many
175 parts of England. It was not long before we perceived some of the
609 inhabitants busied in launching several canoes, and paddling
175 towards us. We threw a rope into one of these canoes which ran up
609 close to us, and one of the three people in her came on board, and
431
201 presented a root of the intoxicating pepper-tree of the South Sea Islands, touched our noses with his like the New Zeelanders, in sign of friendship, and then sat down on the deck without speaking a word. The captain presented him with a nail, upon which he immediately held it over his own head, and pronounced fagafetai,
175 which was probably an expression of thanksgiving. He was naked
291 to the waist, but from thence to the knees he had a piece of cloth wrapped about him, which seemed to be manufactured much like that of Taheitee, but was covered with a brown colour, and a strong glue,
175 which made it stiff and fit to resist the wet. His stature was
142 middle-sized, and his lineaments were mild and tolerably regular.
175 His colour was much like that [424] of the common Taheitians (9), that is, of a clear mahogany or chesnut brown; his beard was cut short or shaven, and his hair was black, in short frizzled curls, burnt as it were at the tips.

142
302 9. As I shall frequently mention the inhabitants of Taheitee, and of the Society Islands, in comparison
● [028] with other islanders, it will be proper to observe, that since the natives both of Taheitee and of the Society Islands, are perfectly alike in most respects, I shall indifferently call a custom Taheitian, or usual at the Society Islands, which is common to them both. Therefore, unless I expresly put these terms in contradistinction to each other, I wish to have them understood in general as synonymous.

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121 a fairly complete discussion of Tongan kinship is relevant, not only because of its obvious relationship to the primary problem, but also because of the incomplete status of research on Tongan kinship and nonunilineal descent generally. In this study a new interpretation of Tongan kinship is presented based on field data I collected and on data presented by other authors concerned with the topic.

Also included in this study are data on forms of exchange other than reciprocity and other aspects of village economies. I have done so to provide the reader with some knowledge of the context within which kinship reciprocity occurs and to contribute some original material to the study of modern Polynesian economies.

121
128 In the remainder of Chapter I, I will further define and discuss the primary problem. I will also describe how the problem was operationalized and how the relevant data were obtained. Chapter II provides orientation to the general physical, economic, and socio-political characteristics of Tonga. In Chapter III Tongan kinship is described and analyzed. The process of adoption is examined to present a detailed account of the sentiments and values of kinship as they affect individuals and families in Chapter IV. Chapter V is primarily a description of economy at the village and individual levels and provides information about several types of exchange. In Chapter VI I present the conscious model of Tongan kinship reciprocity and compare it to the behavior patterns of kinship reciprocity found in the exchange of goods and in the exchange of children (adoption).

121 knowledge of cultural principles can one expect to predict behavior patterns? If not, what is the relationship between cultural principles and behavior? To begin answering these questions, two bodies of data are used: (1) a conscious model constructed from cultural principles relevant to kinship reciprocity, and (2) a behavioral pattern constructed from observed events.

121
602 The Tongan conscious model of kinship reciprocity depicts a flow of goods based on the ranking of kinship categories. These data exist at the conscious level; they do not include inferences concerning the [128] subconscious of social actors. In the text of this paper I use the terms ideological model and conscious model to refer to the pattern or kinship reciprocity described by cultural principles. The term, model, as used here means a representation of a behavioral pattern.

The phenomenal level of kinship reciprocity is represented by a behavioral pattern constucted from a sample of exchange events occurring between kinsmen. The behavioral pattern does not constitute a model as it is built up from the data; i.e., it is not a model of kinship reciprocity; it _is_ kinship reciprocity.

Sampling Units and Samples

121
125 Exchange events are the sampling units and are defined as all transfers of goods or services from one principal to another in which rights of ownership and/or usufruct are also transferred. Two samples [124] of exchange events were obtained from one village. A stratified random sample, sample A, was drawn by selecting twenty household heads

794 at least three hours per week for choir practice:

Monday	5:00 - 6:00 p.m.	Prayer Meeting
Tuesday	6:00 - 7:00 a.m.	Sermon
Wednesday	--------	
Thursday	--------	
Friday	6:00 - 7:00 a.m.	Prayer Meeting
Saturday	--------	
Sunday	6:00 - 7:00 a.m.	Prayer Meeting
	10:00 -11:00 a.m.	Sermon
	1:00 - 2:00	Sunday School
	3:00 - 4:00 p.m.	Sermon

Summary

121
128 In this chapter I have provided a general introduction to Tonga and outlined what I consider to be important aspects of Tongan village life. This information is important in understanding the context within which exchange and reciprocity occur. Through the data presented here I tried to demonstrate that Puke can be considered typical of Tongan villages in some ways and atypical in others. [369] If I were to limit myself to a few key phrases in describing Puke relative to other villages, I would say it is a small, well-integrated village, relatively backward in terms of its technology, and isolated not by geography, but by the traditional and rural life style of its inhabitants.

CHAPTER III

CONCEPTS OF KINSHIP

602 The Tongans' conscious model of kinship reciprocity is based upon
their concept of the relative rank between kinsmen. In this chapter I
128 602 will describe the concept of kin ranking and the criteria used to establish relative rank. The groups and categories of people formed by Tongan notions of descent, filiation, and affiliation will also be presented and discussed.

The Study of Nonunilineal Descent

121 The literature available on Tongan kinship contains conflicting
611 114 statements concerning the ideology of descent and the nature of groups formed by that ideology. Consequently, I will begin by describing this conflict and discussing it in terms of my observations and analysis.

114 Nonunilineal forms of descent have only recently come under de-
611 tailed discussion by anthropologists; Goodenough (1955,1970), Firth (1957), Murdock (1960), Freeman (1961), Davenport (1959), and Fox (1967) have all contributed substantially to the discussion and understanding of nonunilineal systems. Modern studies of such descent systems have shown the need for a refinement and clarification of concepts used by anthropologists for analysis of kinship. Curiously enough the concept of descent itself has been insufficiently defined and used with a variety of meanings. Ward Goodenough (1970: 39) contends that anthropolo-

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612
613 Kaeppler is non-commital in discussing the nature of the relationship between the personal kindred and the lineage system. In the quote above she says the two "...can be conceptually distinguished..." and adds the cautious statement that "...there is a great deal of interaction between them." One of Kaeppler's own comments suggests that the distinction between the two is more real than conceptual.

> [428]
> [593]
> [604] Even though a man may inherit a noble's title, together with a great deal of land and material wealth, he still avoids his sister, treats his brother nearly as an equal, defers to his father's sister and gives anything she wants, demands pigs from his mother's brother, and allows his sister's children to take any of his possessions (1971: 177).

This statement comes closer to the position which states that an individual's position in the lineage system has very little to do with his relationship to his kindred.

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128 The discussion above serves to illustrate that Tongan kinship performs several functions and one cannot hope to describe kinship by focusing on one function. Below I will present a description of Tongan kinship based on the data I collected and analyzed with the thought in mind that different kinship functions may be fulfilled by different ideologies and structures.

Kainga: A Personal Kindred

612 The *Kāinga* is a true bilateral kindred inclusive of all consanguines to whom ego can trace a relationship either through his mother or his father. *Kāinga* does not include affines. *Kāinga* is not a corporate group, but a body of kinsmen may be recruited from it to act corporately for specific occasions, e.g., weddings, funerals, and

613 178 622 423 consequently, have no strong basis on which to maintain a relationship with titled land holders. For the same reason--change in the land tenure--the power of the _'ulumotu'a_ over the members of the _matakali_ has diminished. Individuals no longer need rely on their _'ulumotu'a_ for access to land.

Ha'a: The Criteria for Membership

613 128 In this section I will not fully describe _ha'a_ as Gifford (1929), and Kaeppler (1971), have presented sufficient material on that topic. Here I will only say that _ha'a_ are named groups of titles with the present relationship between titles defined and ranked by the consanguineal relationships existing between the first titleholders. The _ha'a_ are themselves ranked by their genealogical proximity to the first Tu'i Tonga.

613 565 [121] In doing research my interest in _ha'a_ was in discovering whether or not commoners were affiliated with _ha'a_, and if so, how were they affiliated. What I found was that commoners in the village of Puke disclaim affiliation with _ha'a_ except by virtue of residence, i.e., they claimed affiliation to the noble on whose estate they resided. An exception to this was an informant who claimed affiliation with another noble because most of his kinsmen lived on the estate of that noble, and he had only recently lived there himself. However, claiming affiliation and claiming membership are quite different. Commoners in Puke would not say they belonged to the _ha'a_ of their noble.

All legitimate real sons, daughters, grandsons and granddaughters

Summary

128 In this chapter I did not attempt a full description of Tongan social organization as a large amount of material on that topic is already available. I did attempt to outline those aspects of Tongan kinship that have implication for the study of kinship reciprocity. The exact relationship between kinship and exchange will be presented as the conscious model of kinship reciprocity in Chapter VI.

612 The important points presented in this chapter are that each indi-
vidual possesses a personal kindred, *kāinga*, with each individual in
the kindred ranked relative to ego. This relative ranking is the basis
592 of the conscious model of kinship reciprocity. Also, each individual
593 is a member of a household within which relationships are characterized
by a strong definition of the rights and duties of each household mem-
613 ber. Some households are grouped together in larger residential units,
[592] *matakali*. *Matakli* are based on a membership with consanguineal links
[591] to a headman; these links are usually agnatic but not necessarily so.
The corporate character of this group is weak, and headmen have little
power with which to coerce their *matakali* members.

565 Most commoners are not members of the named rammages or lineages
613 (*ha'a*) and consequently have little interest in or knowledge of *ha'a*.
Ha'a are the institutions through which titles and estates are claimed
and only function in regard to those factors. Commoners are, however,
affiliated with a certain noble by virtue of their residence on his
[571] estate. The relationship between noble and villager is better char-
acterized as that of "landlord-tenant" than one of kinship.

CHAPTER IV

ADOPTION AND KINSHIP

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597 In this chapter I will present and discuss adoption of children as one kind of exchange event and in Chapter VI, I will compare the pattern of reciprocity existing in adoption transactions with the conscious model of kinship reciprocity. Also in this chapter, I want to examine the motivations and beliefs pertaining to adoption as they further illustrate and clarify Tongan kin relationships and family organizations.

597 Nearly all adult Tongans have had some experience with adoption, either as adopters, adoptees, or by having more distant adopted kinsmen. The Tongan government sanctions only a few of these adoptions. Few applications for adoption are made to the courts because the circumstances of Tongan adoption do not fit the European model of adoption applied in the courts. In 1970 eighteen applications for adoption were made in the courts, sixteen of these were granted, and two were refused (Roberts 1970: 3). Of the 125 cases of adoption recorded during research only one was a legally recognized adoption.

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101 The village of Puke, being small, had only a few cases of adoption so a larger village, Vaini, was used for this part of the study. Vaini is a village of about one hundred households located on Tongatapu (See Map 2).[A] All households in Vaini were sampled by using the household head or the household head's wife as an informant. Each informant was asked

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[125]

[A] [See p. 25--Analyst]

597 presently practiced in Tonga: *ohi*, the adoption of non-kinsmen, and *pusiaki*, the adoption of kinsmen. *Pusiaki* literally means 'to rear a child away from its mother' (Churchward 1959: 424). *Ohi* also has a broader meaning and is used to describe human nurturance of young animals. For the adoptee *ohi* represents a more complete break with his biological parents simply because his adopted parents are not kinsmen and, consequently, less likely to have frequent contact with the biological parents.

A conservative estimate of the proportion of *pusiaki* to *ohi* would be about forty to one. In Malapo where an exhaustive sample of households revealed eighty-one cases of adoption, two were *ohi* type adoptions.
(128) The remainder of this chapter will deal primarily with *pusiaki*, and the term "adoption" will be used as the gloss of *pusiaki*.

Beliefs and Motives

597 An analysis of adoption circumstances reveals two basic patterns.
591 each identifiable with a phase in the household cycle. An initial
592 phase is characterized by a man and wife residing with a kinsman of either and being dependent upon that person for housing and perhaps land and food. This phase frequently ends with the birth of the first child and the subsequent establishment of an independent household.
592 The next period is the young household phase characterized by the bear-
597 ing and rearing of children and the maintenance of an independent household. A third phase, the mature family, is marked by the cessation of child bearing, maturing children, and frequently the presence of depen-

CHAPTER V

VILLAGE ECONOMICS AND MODES OF EXCHANGE

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178 Village economy in present-day Tonga is a composite of traditional forms of production, consumption, and exchange and Western modes of economic integration. The change from the traditional to the modern has proceeded slowly in an atmospere of conservatism and pride in maintaining the traditional life style. Traditional attitudes and values tend to force disbursement of acquired cash into areas which bring about social prestige rather than capital formation. 128 In this chapter I would like to describe village economy as it exists under this situation of change. I also will describe and discuss the various types of exchange utilized.

Cash Income

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[434] The village economy is subsistence oriented and relies upon labor-intensive, swidden agriculture as the production base. All household heads rely to some extent on cultivation for meeting basic dietary requirements and usually combine with gardening some other subsistence pursuit to provide variation in their diet and to provide cash for other needs. 463 Table 11 gives the dominant occupation for forty-two household heads in Puke. A

434 Cash income is derived from several sources including the sale of copra, fresh coconuts, bananas and other produce, fish, and handicrafts.

A.[See p. 74--Analyst]

574 Christmas, New Years, the Sabbath, and the several national holiday of
[527] Tonga such as the King's birthday. Feasting is also important at funer-
als, farewells, and welcomings. Each feast may be viewed as small-scale
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571 redistribution where many individulas may be asked to contribute food
and are also asked to attend. For the feast-giver there is the prestige
and reward of obligating others to him. The social units participating
in the preparation of a feast vary from the members of one household to
an entire village. In Puke one of the basic reasons for village divi-
sion is to facilitate the preparation of feasts for village guests, par-
ticularly churchmen. Each of the divisions takes its turn in rotation.

The Modes of Transaction

128 In this section I will describe the types of transactions used in
the flow of goods and services and try to establish the relative impor-
tance of each. Possibly the most outstanding feature of this aspect of
432
178 the Tongan economy is the integration of modern market modes of trans-
actions with the traditional forms of reciprocity. Buying and selling
432 is still a relatively new idea in Tonga and there is some social stigma
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443 attached to persons who engage in such activities. Persons selling food
558 are frequently the topic of gossip as Tongans wonder why the seller is
626 not giving the food. A common ploy used by vendors of foodstuff is to
use children as the salesmen; this tactic helps prevent gossip and re-
moves the vendor from a situation in which he might be asked to reduce
his price for kinsmen and friends or even freely give the merchandise.

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[574]
context of feasting; the most obvious example is the Tongan funeral. Mourners bring pigs, vegetables, and bread which are prepared by low ranking kinsmen of the deceased. Some of the food is consumed at the funeral, but most is divided into individual parcels and given to the mourners as they leave. [565] Nobles still possess the power to amass large amounts of food for feasting occasions by demanding it of their relatives and the commoners who live on their estates.

Parameters of Reciprocity

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Sample B as described in Chapter I consists of 604 exchange events. All of these exchange events can be considered as instances of reciprocity. Here reciprocity only means that the exchange event is based on the social relationship of the principals involved, rather than on an economic relationship. This sample of 604 exchanges will be used in Chapter VI to establish the behavioral pattern found in kinship reciprocity. Below I will describe certain other characteristics of the sample.

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It is quite acceptable to solicit gifts and 'to ask for a gift or some other favor' is kole. In 26 percent of the 604 cases recorded the gift was solicited and in 74 percent of the cases the item was offered. In 7 percent of the cases, the transactions were associated with some "special occasion" such as wedding, funeral, or some type of celebration feast. [571] The great proportion of these transactions, then, were made in the course of daily patterns of interaction rather than in the context of extraordinary events.

431 other people to him; this situation provides both security and some
554 degree of personal power.

431 To assess the combined influence of social distance and geographic
571 distance on exchange, each exchange was categorized as to whether the
602 principals were kinsmen or not, and as to whether they resided in the same village or not. These two variables are cross-tabulated and presented in Table 17.^A There is a strong tendency for principals residing in different villages also to be kinsmen (Compare cells C and D). However, the reverse is not true: There is a strong tendency for principals residing in the same village to be non-kinsmen. This conclusion
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431 is drawn from the statistics presented below the table. Q measures the
571 one-way association present and is fairly high, while phi, measuring
602 two-way association, is considerably lower. Where λa is .29 when kinship is predicted on the basis of knowledge of location, it is only .05 when location is predicted by knowledge of kinship. λ which considers both of these possibilities is .17, intermediate of the λa values.

121 Marshall Sahlins (1965: 149-153) offers an hypothesis suggesting
431 that as geographic distance increases, social distance decreases. I
571 cannot directly relate my data to his hypothesis as my data show only
602 the frequency distribution within one type of reciprocity. Sahlins' hypothesis requires data fitting his tripartate typology of reciprocity-general, balance, and negative reciprocity. However, my data do illustrate that kinship is an important criterion for selection of exchange partners from among persons residing in different villages.

A. [See p.102--Analyst]

TABLE 17

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571
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Social and Geographic Distance

	Kinsmen	Non-kinsmen	
	A	B	
Same Village	150	236	386
	C	D	
Different Villages	160	58	218
	310	294	604

Cell	Observed	Expected	o-e	$\frac{(o-e)^2}{e}$
A	150	198.1	-48.1	11.68
B	236	187.9	+48.1	12.31
C	160	111.9	+48.1	20.68
D	58	106.1	-48.1	21.81
		(Significant at $<.001$)		$66.48 = X^2$

$\theta = .34$

$Q = .63$

$\lambda_a = .29$ (Kinship is dependent variable)

$\lambda_a = .05$ (Location is dependent variable)

$\lambda = .17$

CHAPTER VI

IDEOLOGY AND BEHAVIOR

128 121 In this chapter I will present the conscious model of kinship reciprocity and compare it with the patterns of reciprocity I observed in adoption transactions and in the transfer of material items. The procedure will be to describe the conscious model, see if it is predictive of behavior, and then discuss the results of such a comparison.

The Conscious Model

602 554 The basic characteristic of the conscous model is that it describes the rights and duties existing between ego and the several kin categories, and bases the distribution of rights and duties on the concept of kin ranking. 602 554 114 Although the conscious model I present here is based on primary data that I obtained, other researchers in Tonga have noticed and recorded similar data. E.W. Gifford (1929: 17-19) discusses the effect of relative ranking on behavior, Ernest and Pearl Beaglehole discusss some implications of kin ranking for kinship reciprocity (1941: 76-78), and Adrienne Kaeppler, after discussing kinship rank, said

> [612] [431] [437] The economic implications of status within the system of exchanges among the *kāinga* can be characterized as indirect reciprocity, i.e., goods and services go from ego and his siblings to his patrilateral relatives, while he exacts goods and services from his matrilateral relatives (1971: 179).

However, none of these researchers has presented any data on exchange that would indicate whether the conscious model is actually reflected

602 554 183 431 437 [784] Tuofefine-Tuonga'ane: Tuonga'ane must show respect toward his tuofefine and several prohibitions exist in this avoidance relationship. Tuonga'ane cannot sleep in the same house as their tuofefine, they cannot speak of sexulaly-related matters, and tuonga'ane and tuofefine should not walk or talk alone together. Physical affection should not [593] be present in this relationship. Boys and men are responsible for the welfare of the sisters and should willingly assist them with labor and goods. So the flow of goods, then, is from tuonga'ane to tuofefine.

Kui-Mokopuna: This should be a relationship of mutual understanding and affection. There are no special restrictions or avoidances, and no direction of reciprocity is specified.

602 554 431 437 This scheme of reciprocity as set forth in the conscious model is in one sense not reciprocity at all. That is, if only the flow of goods and services between individuals is considered, the flow is very much in a one-way direction. However, if the entire kindred of each ego is considered, a balance emerges where at least in theory ego would have as many persons to receive from as to give to. In the conscious model of kin reciprocity, then, ego is the center of an activity system in which decisions concerning the flow of goods and services are ideally made according to ego's kinship rank relative to other individuals within the system. ● 128 Now I will present the patterns of behavior actually present within that system by using the data recorded in observing the exchanges of goods and in the exchanges of children.

Comparison of Ideals and Behavior

602 431 437 The conscious model pertains only to the flow of goods between kinsmen, and in the sample of exchange events involving material items, sample B, there are 267 events in which exact genealogical information could be recorded. This sample is presented in Table 18.[A] The adoption [597] transactions provide another sample of 81 exchange events. In Table 19[B] both samples are presented in percentage figures to facilitate comparison.

● 128 In Table 19 ~~each~~ kin dyad is presented and the direction of flow of goods and children is indicated. Where (I) appears in the table, it marks the ideal direction of exchange.

Now I want to discuss each dyad in turn and will do so by referring to the number corresponding to the dyad in Table 19. 602 431 437 183 597 In dyad number one the flow of goods is predominantly in the ideal direction, but all adoption transactions involving this relationship are in the opposing direction. For the adoption transactions the demographic fact that the tama in these transactions would be the only ones in possession of young children almost precludes exchange of children in the ideal direction.

In dyad number two which is the 'MB'-'ZC' relationship, there is a lower frequency than one would expect, yet this relationship is one in which exchange in the ideal direction is of paramount importance in the conscious model. The conscious model does not specify number but it does seem to imply a high frequency. The ideal direction of exchange does not predominate in a comparison with the opposing direction. The cases of adoption involving this relationship are too few to come to any conclusion except to note that this dyad is not frequently involved

[A] [See pp. 108-110--Analyst]

[B] [See pp. 111-112--Analyst]

[TEXT CONTINUED ON PAGE 113]

NOTES

Chapter I

000 [1] Initial fieldwork in the village of Puke was characterized by suspicion and even hostility on the part of some villagers.

[2] At times the same exchange event would be recorded from the donor and the recipient. This provided an excellent opportunity to check for reliability, and then only the first record of the exchange would be used in the sample.

[494] [122] [3] Puke was convenient because transportation was available and reliable between the village and Nuku'alofa where I resided.

Chapter II

[436] [1] The basic unit of Tongan currency is the pa'anga 'dollar' and during this study it was valued at $T1.00 = $US1.14. All monetary figures in this text are expressed in Tongan currency.

[128] [2] Titles referred to in this text are actual titles, but all personal names appearing are fictitious.

Chapter III

[124] [1] Very few informants remember names of ancestors further removed than great grandparents.

[804] [2] One rood and 24 perches equals 64 square rods or about $^3/8$ acre.

Chapter IV

[1] I did record one case of adoption by an unmarried male, but that case was not in the sample from which I am generalizing.

[2] In 56 percent of adoptions recorded the adopting parents and the biological parents resided in the same village, giving ample opportunity for an adoptee to continue seeing his biological parents.

74: Urbanowicz E-4,5 (1970-1971) 1978
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CHAPTER I

INTRODUCTION

121 Each discipline needs a method. Ethnohistory has a problem in that it lacks an explicit statement of method. There is a distinct need for such a statement.

128 The first duty of the scholar is to present his theories so that the reader understands the basis on which the scholar makes his statements and interpretations. I present my theories and definitions of ethnography, history, and ethnohistory so that there will be no confusion in the reader's mind when I use these, and related, terms.

I present detailed information on the archival sources with which I worked and which provide the examples for the method of ethnohistorical research. The problems, range, and limitations of those sources are discussed as well as explicit details for extracting descriptions relevant to ethnographic problems by means of ethnohistorical method.

The application of ethnohistorical method to archival sources culminates in an ethnographic reconstruction. This dissertation concludes with statements on the value of such ethnographic reconstructions for Oceania anthropology and statements on further problems to be considered by anthropologists. The thesis is presented that ethnohistorical research is scientific.

128 For this dissertation examples are drawn from sources pertaining
101 to the Polynesian archipelago of Tonga. Tonga derived its name from
103 the principal island of the group, Tongatapu or sacred Tonga. The
"tapu" was probably appended to the "Tonga" because this island became
101 the residence of the leaders of the archipelago. Tongatapu Island was
the focal point for the political and religious system in the archi-
174 pelago prior to and after European contact. The Polynesians who ori-
133 ginally settled all of the Tongan archipelago appear to have chosen
this relatively flat island, no higher than 200 feet above sea level
along points on the southern or cliff-bound *liku* coast, because of
133 terrain and climate. The middle, or Ha'apai, group of islands, tradi-
tionally set off from Tongatapu by the volcanically formed islands of
Hunga Ha'apai and Hunga Tonga, are a series of low islets. The northern-
most island group of Vava'u has relatively high hills, with most of the
132 land being at least 100 feet above sea level. Vava'u was, and is,
182 subject to more destructive hurricanes than Tongatapu during the hurri-
cane season and it was only on Tongatapu that relative permanency of
material culture and continuity of leadership could be maintained for
generations.

131 The territorial boundaries of the Kingdon of Tonga were pro-
claimed by King George Tupou I to be 15°S and 23°S and 173°W and 177°W
(*Tonga Government Gazette*, Vol. 2, No. 55, August 24, 1887). The
islands of the Kingdom thus fall within a rectangle of the South Pacific
some 596 miles North-South by 264 miles East-West, with the outer
islands of the Kingdom being Niua Fo'ou Island to the North at 15°34'S

797 [127] [128] written by these Wesleyan missionaries who were in Tonga in the first half of the 19th Century, the period covered by this research. On the following page is a list of these missionaries with arrival and departure dates.

Perspectives

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> Ethnohistory has come to mean many things to many people, and as the acceptance of the term has spread throughout the learned world the term has acquired new definitions according to the uses to which it is being put (Fenton 1966: 71).
>
> The emergence of ethnohistory as a recognized field of research is part of the rapprochement between anthropology and history in aims as well as in methods and techniques (Sturtevant 1966: 4).

The rapprochement comes from the fact that the "ethno-" in ethnohistory has the same referent as the "ethno-" in ethnography: it stands for a particular group of people. The "history" in ethnohistory stands for the application of historical method to documents for a specific ethnographic problem. Although every ethnohistorian is first an ethnographer, ethnohistory cannot be called ethnography; and although ethnohistory draws on historical methods, it cannot be called history.

Historical method is a logical process of checking descriptions recorded in the past. It is a scientific process, if by science we mean "capable of ascertaining demonstrable fact" and "if by fact is meant a detail derived from a critical examination of historical documents rather than a detail of past actuality" (Gottschalk 1950: 193; Vide Sturtevant 1966: 4). Because the historical method is to some extent

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CHAPTER II

PROBLEMS

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> ...for inquiry does not start with a method; it starts with a problem. Thus it is the problem which designates the method, not the method which designates the problem (Northrup 1947, 1959: 20).

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128 This work presents data and theory necessary to deal with the basic question: what is the research procedure for an ethnographic reconstruction based on archival materials? To date, there has been no work which has specifically stated the precise method used by a researcher to utilize archival materials for ethnographic purposes. What follows is an explication of ethnohistorical method designed to deal with this problem area in anthropology.

121 In 1961, Lurie, an anthropologist who has done ethnohistorical research wrote, "as far as I know, no one has ever set down guides for this type of analysis of documentary accounts" (Lurie 1961: 83). Valentine, another anthropologist who has utilized documentary sources for his own particular ethnographic problem, agreed with Lurie and testified to his own "sense of methodological insecurity" when working with archival or manuscript materials because of the lack of explicit guides (Valentine 1961: 276).[1] "Anthropological ethnohistorians," as Sturtevant writes, not only overlook useful manuscript materials but

121 also are "still too prone to use printed sources uncritically, without comparing editions and searching for the manuscripts which may lie behind them" (Sturtevant 1966: 17). Sturtevant points out that historians have developed methods to weigh and distinguish evidence in documentary sources, and anthropologists could profit from the application of historical method to documentary sources for specific problems in ethnography.[2]

[128] In this work I follow currently accepted anthropological definitions of ethnohistory, and specifically define ethnohistory as the application of historical method to specific problems in ethnography. Ethnohistorical facts eventually serve as ethnographic facts of the past.

Ethnohistorical researchers are not the only anthropologists who are lax in describing their specific methods of research, since ethnographers in general often fail to detail specific research methods. The editors of A Handbook of Method in Cultural Anthropology sum up the situation:

> Methodology within anthropology has always been something of an underdeveloped area. Somehow, by reading, by association, intuition, and being the 'right' kind of person to begin with, a student was traditionally supposed to pick up enough understanding of method to carry out field work or comparative analysis (Cohen and Naroll 1970: 3).

It is my intention to remedy the deficiencies for ethnohistorical research concerning manuscript materials and indicate how data from an
121 ethnographic reconstruction can contribute to anthropology. I deal
128 with two specific problems: how an ethnohistorical method is applied

121 128 to manuscript materials, and how those materials are used for ethnohistorical purposes despite certain limitations in quantity and quality (vide Dening 1966: 27).

121 In stressing the "methodology of an ethnographic reconstruction" I follow Kaplan who writes that methodology means "the study--the description, the explanation, and the justification--of methods" (A. Kaplan 1964: 12). The aim of methodology is to:

> describe and analyze these methods, throwing light on their limitations and resources, clarifying their presuppositions and consequences, relating their potentialities to the twilight zone at the frontiers of knowledge (Ibid.: 23).[3]

Manuscript

127 Every ethnohistorical researcher must ask the following questions for his particular research problem: What data are available? Where are the data located? What is the format of the data? And who was the eyewitness who produced the data? When working with manuscript sources, the researcher must consider the completeness or regularity of the descriptions in the manuscript. The eventual selection of manuscript examined is determined by the hypothesized problem and the resources of time and money.

For this research manuscript materials on Tonga were examined. The Wesleyan missionaries who worked in Tonga in the early part of the 19th Century left behind a great deal of manuscript in English and the main body of manuscript was located in the Mitchell Library of Sydney, Australia. I knew the manuscript materials were located in the

127 as "J" can stand at times for the sound "J" as in "Jiosaia," or the 104 sound "G" as in "Jioaji" for "George" or as the sound "S" as in "Inaji." This final term is currently transcribed as *'inasi*.

The 19th Century accounts often omitted the symbol for glotal closure in a word, now represented by the hamza (the inverted comma or '). The spelling of "Tuiateho" for the current spelling of *Tu'i Ha'ateiho* is one such example; the title *Tu'i Tonga* was once recorded as "Tui Toga."[4]

● 128 All of the orthographic variations as recorded in the original sources have been maintained throughout the citations, without the seemingly appropriate *sic* interjected into the description. Where necessary, explanations of gross orthographic anomalies are made for clarification. Neither have I made any grammatical or punctuational corrections. When the Wesleyan missionary John Thomas wrote that "...and has he feels satisfied..." (Letter-Journal, July 23, 1833), Thomas wrote "has" instead of "as" in the sentence in question (cited in full on page 72). When the ampersand is used as in "&c" or simply as "&," this is the way it was written in the original document. Particularly, when any documentary sources capitalize any words or stress or underscore any words, I follow suit when making direct citations.

127 The ethnohistorical researcher should maintain the original language found in the documents for two reasons: The first reason is that it maintains the flavor, setting, and time period of the original citation. Maintaining the original language stresses the context of the word within the original description (*Vide* Washburn 1957: xi).

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CHAPTER IV

SPECIFICS

128 The following figure is extracted from data on page 6. It is a graphic representation of the length of stay of Wesleyan missionaries in Tonga in the early 19th Century.

This figure indicates overlap of missionaries in Tonga for the 1826-1840 period. It represents potential sources of descriptions from different eyewitnesses as a cross-check for reliability, providing the missionaries kept records, which are extant, and contained ethnographic descriptions.

127 One method of research would involve reading one particular individual's accounts in their entirety, for example, John Thomas from 1826 to post 1850, and extracting descriptions from his accounts. The descriptions are extracted on the basis of the researcher's ethnographic-ethnological knowledge, as having potential for eventual statements of ethnohistorical fact. After having read and extracted specific descriptions from one individual's accounts, he then proceeds to repeat the process for a second individual's accounts, such as Watkin's accounts for 1831-1837, and proceeds in this manner until all of the accounts are read.

The value of this technique is that it facilitate internal comparison in that the researcher can readily observe the changes in

127 manner until all of the extant missionary accounts for the same six-month period had been read. As the reading progressed, I extracted ethnographic descriptions from the accounts on the basis of my background knowledge. I was able to make specific external comparisons of different eyewitness descriptions of the same Tongan behavior observed on the same date. Thus a wide range of such descriptions, by different eyewitnesses, are examined by the ethnohistorical researcher in a single working day.

128 The two alternative reading methods are portrayed in the following
127 figures (Figures 2 and 3). For both figures, each line (---) represents the manuscript accounts of a specific missionary (A, B, C, D), and the numeral (1) represents the description of the same Tongan social or cultural behavior recorded on the same date. "C" did not observe the event.

127 In Figure 2, the researcher, when he begins his analysis of the extractions from description "1," can compare 1A and 1B as soon as he gets to the place in the account where description 1B occurs. Likewise, he can compare 1D with the previous extractions from 1A and 1B when he gets to the place in the account where description 1D occurs. Alternatively, the researcher can wait until all the accounts have been read, and go back to his notes of the extractions, and then compare 1A with 1B with 1D all on the same date of the researcher's time. The failing of this reading method is obviously the fact that until the researcher actually reads the manuscript accounts of B, C, or D, he does not know if description "1" as recorded by "A" is an isolated

127 565 643 wrote of Fae's death in August of that year:

> [771] [595] The death of this chief will make a considerable sensation through this island, he was the hau, or how, a conqueror. He became the how at the death of Takai, his elder brother, who was a great warrior and very successful. Fae, or Taufa, was a powerful chief, and a strong advocate for idolatry and a persecutor of true religion. He was a great polygamist, and had about 16 wives [stress added] (Thomas, Journal, August 12, 1833).

This account by Thomas points out that Fae was also hau, having succeeded his brother in the title. Where Gifford writes of Fae succeeding Takai upon Takai's death (1929: 209), he merely quotes a translation of a Tongan account which states Fae "ruled in his Takai's place at Pea." Gifford does not write of Fae as having been either hau, Tu'i Ha'a Takalaua or Tu'i Kanokupolu.

Based on Thomas' descriptions I would make a statement of ethnohistorical fact: Takai and Fae were both hau in the early 19th Century. I would not, however, state that Takai and Fae were either Tu'i Ha'a Takalaua or Tu'i Kanokupolu since there is insufficient evidence to support such a statement. In this instance, I accept Thomas' 19th Century first-hand eyewitness descriptions in preference to Gifford's 20th Century interpretations.

● 128 127 In this section I have discussed and cited three individual 19th Century Wesleyan eyewitness descriptions of a particular Tongan ceremony, the hikitanga. I have demonstrated how each description is externally consistent or corroborates to some degree parts of the other individual descriptions.

127 As an ethnographer-ethnohistorian, I am not so much concerned with the uniqueness of the descriptions of the July 23, 1833, hikitanga

121 explicitly stated. We have no way to judge an ethnographic reconstruction without an explicit statement of method and without explicit statements of evidence. How was the ethnographic evidence culled from the non-ethnographic documents? And how did the researcher decide what was actually ethnographic evidence of the past and quasi-ethnographic fabrication of the untrained observer?

The limitations inherent in the ethnohistorical method are numerous, but they are precisely the same ones inherent in the historical method--and historians have coped with their limitations by the rigorous systems of checks and balances applied to their interpretations. The chief limitation is obviously the one that the researcher can only work with what is recorded in the document, but this limitation is ethnohistory's greatest strength: if we call manuscript "informants," containing ethnographic descriptions which form the basis of ethnohistorical fact, then those informants will not "die" but will be available for future researchers to check. Not only can future researchers check on every statement of ethnohistorical fact, but the identical informants will still be available for hypotheses of the future--hypotheses which have yet to be formulated by present researchers.

● 128 In this work I have demonstrated how ethnohistorical method can be applied to non-ethnographic documents and how ethnographic evidence can be extracted from the documents and tested. I have discussed how the ethnohistorical researchers must use the most efficient method of extracting ethnographic descriptions from manuscript sources, and

● 128 cross-check the descriptions for internal and external consistency.
127 The ethnohistorical method is determined in part by the location of the
sources, the policy of the research institution, and the manner in
which the sources are preserved (original, microfilm, photocopy, etc.).
The best ethnohistorical reading method I found was that of chronological-
synchronous. The amount of ethnographic description contained
within the manuscript sources determined the time-span block I utilized
127 in reading. With this chronological-synchronous ethnohistorical reading
128 method, changes in perspective of the eyewitnesses can be recognized
and accounted for, as I discussed it earlier on the concepts of '*otua*
and '*inasi*. The historical method of making specific internal and
external checks on the consistency or validity of descriptions has
been demonstrated using descriptions in reference to '*otua*, *hikitanga*,
and '*inasi*. Statements of ethnohistorical fact, based on the consistencies
of the details in the descriptions, have been made. An ethnographic
reconstruction of the '*inasi* was presented and it was pointed
out that ethnographic reconstructions can contribute to the testing of
ethnographic hypotheses concerning Polynesian cultures.

121 Ethnographic reconstructions are not limited to descriptions of aboriginal culture, but can be made at any point along the time continuum. I have discussed information from the 1822-1850 period of Tongan-European contact. If documents, and verifiable ethnographic evidence within those documents, become available for the 1850-1900 period, an ethnographic reconstruction of post-1850 Tonga could be attempted. There is no reason why one cannot reconstruct cultures at any point in time.

76: Yuncker N-4,5 (1953) 1959 OU9 Tonga OU9

126 doned because of a combination of unfavorable weather and lack of transporta-
101 tion. But I predict that collections made on those islands, so far little-known botanically, where land utilization has been slight will increase to some extent the list of species known to grow in Tonga.

000 A number of botanists have visited Tonga in the past and made collections ranging from a few numbers to several hundred. Among the first collectors known to have reached the islands were Banks, Solander, the Forsters, and Nelson who accompanied Captain Cook on his voyages in the latter part of the eighteenth century. Among others who have collected there subsequently may be mentioned George Barclay, James Macrae, Captain W. F. Beechey, Alexander Mathews, Sir Edward Home, W. H. Harvey, Dr. E. Graeffe, J. N. Moseley, Charles Wilkes of the United States Exploring Expedition, T. B. Cartwright, J. J. Lister, and C. S. Crosby. With the exception of the collections made by Moseley on Tongatapu, Lister on 'Eua, and Crosby on Vava'u, most were relatively small and most were obtained during the nineteenth century. In 1926, H. E. Parks and W. A. Setchell collected on Tongatapu and 'Eua, and in 1951 Dr. Hans Hürlimann spent several weeks making collections, principally on Tongatapu, 'Eua, Tafahi, and Niuatoputapu.

113 Two comprehensive reports have been made on the flora of Tonga: (1) The flora of the Tonga or Friendly Islands, . . ., by W. B. Hemsley in the Journal of the Linnaean Society (Botany 30: 158-217, 1894), which also included some species from islands outside the Tongan group, and (2) The flora of Vava'u, one of the Tonga Islands, by I. H. Burkill in the Journal of the Linnaean Society (Botany 35: 20-65, 1901). In addition, occasional references to Tongan species are found in reports on the flora of nearby islands or on the Pacific area in general.

● 128 The collections cited by Hemsley and by Burkill in their reports, unless for some reason questioned, have been included in the list of citations for the different species. These specimens have not been studied and are only provisionally included. The Hemsley and Burkill publications when referred to with respect to synonymy are indicated as Hemsley's and as Burkill's lists. The specimens collected by Dr. Hürlimann which have been examined are also cited. Altitudes given in connection with the citation of some of the collections were estimated or obtained from map records.

126 I made no attempt to procure extensive collections of the lower plants, and
137 only the most conspicuous and abundant species were taken. The small rep-
resentation of the lower groups should, therefore, not be interpreted as an
137 indication of their scarcity. Fleshy fungi, especially, appeared to be quite abundant in the moist forested areas. Parasitic fungi such as leafspots and rusts, on the contrary, were very scarce. In none of the regions visited were bryophytes conspicuously abundant, as is frequently true in tropical rain-forest areas. Such collections of the lower cryptogams as were made are included in this report as a matter of record.

76: Yuncker N-4,5 (1953) 1959 OU9 Tonga OU9

The conspicuous and apparently well-established cultigens, as well as introduced weedy species, were either collected or noted and are, for the most part, included, as I believe that such information is of value in helping formulate a proper concept of the flora of any region. So far as I know, many of these introduced or migrant species are covered in no previous report on the Tongan flora. 126

In this work, 49 lower cryptogams, 71 pteridophytes, and 630 spermatophytes are recognized, making a total of 750 species and varieties. 137

The late Sir Peter Buck, then Director of Bishop Museum, originally suggested the desirability of a botanical survey of Tonga and assisted in the preliminary plans. The government of Tonga was interested in the project and, through Prince Tungi, rendered aid in every way possible. Mr. Willy Straatmans, Director of the Department of Agriculture, was most helpful in arranging for transportation between the islands, for living quarters in government rest houses, and for local transportation by land-rover on the islands of Tongatapu and Vava'u. 122

I was fortunate in obtaining the assistance of W. Toluta'u Ha'angana, a member of the Tongan department of agriculture staff, who served as chief assistant for the entire period of the work. "Tolu" proved to be a most intelligent and cooperative assistant at all times, and his knowledge of Tongan plants was considerable. Most of the local names given in this report were supplied by him, as well as the information about the uses made of the plants by the Tongan people. On many occasions his explanation for our presence on plantations or other private property of suspicious owners unable to understand English smoothed the way and avoided trouble. His agility in procuring drinking coconuts was likewise much appreciated. 114 [115]

Tongans do not always distinguish between closely related plants and sometimes apply the same name to more than one species. Also, occasionally the same name is given to widely different species, leading one to suspect that some names are erroneous. Such presumed errors were checked as far as possible and, if obviously wrong, eliminated. Where two or more names have been supplied for a given species, the one believed to be more commonly used is listed first. 824 [128]

In the identification of the collections I am greatly indebted to a number of specialists. The fleshy fungi were identified by Dr. J. A. Stevenson; the liverworts, by Dr. Margaret Fulford; the lichens, by Dr. Carroll W. Dodge; the mosses, by Mr. E. B. Bartram, who also furnished the description of the new species; the description of the new *Podocarpus*, by Mrs. Netta Gray; the pteridophytes (excepting *Selaginella*), by Mr. C. V. Morton; *Selaginella*, by Mr. A. H. G. Alston; the grasses, by Dr. J. R. Swallen; the orchids, by Mr. Charles Schweinfurth; *Ficus*, by Mr. W. J. H. Corner; *Pipturus* and *Santalum*, by Dr. Carl Skottsberg; certain members of the Apocynaceae, by 000

000 Dr. R. E. Woodson, Jr.; the Verbenaceae, by Dr. H. N. Moldenke; *Bidens*, by Dr. Earl E. Sherff; and *Nicotiana*, by Dr. T. H. Goodspeed.

Dr. A. C. Smith of the Smithsonian Institution, a student of the flora of the Pacific, in particular that of Fiji, has named a large number of the more difficult and often sterile specimens of the flowering plants. He has prepared the description of the new species and has contributed numerous comments relative to distribution and other pertinent information. For this most valuable assistance I am deeply grateful.

My wife, Ethel Yuncker, who accompanied me, took charge of the drying and care of the specimens as they were brought from the field. Her assuming responsibility for this tedious and monotonous work greatly reduced the task of preparing the specimens for shipment.

Dr. H. L. Mason, Director of the Herbarium at the University of California, lent me the unpublished manuscript list of collections made in 1926 by Setchell and Parks and also a number of herbarium specimens of questionable or critical species. These loans were most useful, and are appreciated.

Many other persons have assisted in various ways, including Tongan and European residents in the islands. To all who have aided in any way, I express my thanks.

● 128 The following symbols indicate herbaria where the collections are stored: BISHOP (Bernice P. Bishop Museum), BM (British Museum, Natural History), DPU (DePauw University), F (Chicago Natural History Museum), GH (Gray Herbarium), MO (Missouri Botanical Garden), UC (University of California, Berkeley), and US (United States National Museum).

137

FUNGI

Identifications of the following fungi are by J. A. Stevenson.

Family THELEPHORACEAE

Genus Stereum S. F. Gray

Stereum caperatum (Berkeley and Montagne) Massee, Linn. Soc. Bot., Jour. **27**: 161, 1890.

'Eua: on rotten log in forest above Fuai, near center of island, Apr. 5, 1953, *Yuncker 15646*.

Family POLYPORACEAE

Genus **Daedalea** Persoon ex Fries

Daedalea elegans Sprengel, ex Fries, Syst. Myc. **1**: 335, 1821.

'Eua: on rotten log in thicket near Fuai, near center of island, Apr. 7, 1953, *Yuncker 15661*.

78: Weiner N-4,5 (1969) 1972 OU9 Tonga OU9

Ethnomedicine in Tonga

● 128

MICHAEL A. WEINER[1]

Local medical practices in this Pacific archipelago are reviewed, the folk taxonomy and medicinal uses of 71 plants are discussed, and the medicinal applications of each species in some other regions of the Pacific are enumerated. Included are the plant parts used, Tongan names, the illnesses, and the preparations of the remedies.

[p. 423-A]

000 *zerumbet* as one component of an hallucinogenic mixture used in New Guinea.

824 III. Tongan Plant Nomenclature

Although Tongans do not seem to categorize plants into botanical orders, they make a distinction between Fungi, Lichenes, Musci, Pteridophyta, and Spermatophyta, and are usually able to recognize small differences between species. Most Tongans, from about age nine, can lead you to a plant given only its local name. However, Tongans are *not* always able to distinguish between similar plants and sometimes use the same name for more than one species. In some cases the same name is applied to 824 several different genera. Table I lists Tongan plant names that are applied to different 128 genera. If Yuncker (32) recorded these names from one or several locals who were unfamiliar with the flora, the list would be of no value. However, assuming that these Tongan names are accurate, I believe that, although Tongan morphological characteristics for distinguishing plants and their relatives may be different from ours, this list may provide insight into the statuses of genera the relationships of which in the plant kingdom are still somewhat enigmatic. For this purpose I have listed also the respective plant families. Plants in Table I with identical Tongan names found in two closely related families deserve closer examination.

824 The application of similar names to plants within different genera by the Tongan is not always due to carelessness, nor is it evidence that Tongans are unable to categorize plants systematically. The same name is sometimes applied because of common use of more than one species. *Curcuma longa* (Zingiberaceae) is known as *ango*, and *Zingiber zerumbet* (Zingiberaceae) is [278] called *angoango*. These plants obviously belong to different genera, but to the Tongan the fact that the rhizomes of both plants are used in similar medicinal preparations shows a strong enough relationship to indicate similar nomenclature. Similarly, the flowers of both *Cananaga odorata* (Annona-

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[2] Hylin, J. Personal communication to author. February, 1970.

[p.426-B]

78: Weiner N-4,5 (1969) 1972
OU9 Tonga OU9

824 ceae) or *mohokoi* and *Artabotrys uncinatus* (Annonaceae) or *mohokoi honolulu* are used to scent oil.

824 128 Table II consists of a list of 13 cases where identical Tongan names are applied to different species. This list is derived from those medicinal plants enumerated in section V which have Tongan names that are applied to other species. Assuming that the names are accurate and that there is a logical explanation, I have attempted to determine why these plants are given identical names. By asking the question "How

[p.428-B]

78: Weiner N-4,5 (1969) 1972
OU9 Tonga OU9

824 might an individual unfamiliar with the
128 principles of plant taxonomy known by our culture categorize the plants of his environment?," I established the probable characteristics upon which the Tongan may derive his nomenclature. These characteristics may not represent all those used by the Tongan, although I am certain that some of the
824 following are of importance to him. My hypothetical individual would probably first assess the gross morphological characteristics of a plant such as the type of plant (tree, shrub, vine, fern, grass, moss, fungus, etc.),

[p. 428-C]

[TEXT CONTINUED ON PAGE 433-B]

115 Tolu Ha'angana

(Agricultural Officer. Assistant to T. G. Yuncker when he was collecting in Tonga.) Field work, discussions, medical uses of plants.

Preben Kauffmann (Tavi)

(Expatriate from Denmark, 17 years in Tonga, friend of King Tupou IV and integral member of his community. Vegetarian.) Plants and medical uses.

Latu Toili

(Driver for Medical Department.) Plants and medical uses.

Te'ekiu Village:

Amato Uia

(A renowned practitioner with 45 years experience.) Medical uses of plants and discussions.

128 A total of 91 remedies were recorded. Included in these remedies were 59 different species of plants used by at least two different informants. References to an additional
128 17 species of reputed value but not met with
127 in the field are included from the literature (29).

124 The general procedure for gathering data consisted of interviewing informants in their villages. With the aid of an interpreter, data were gathered in four categories. Tongan name of the plant, the part utilized in preparing the medicine, the illness, and the preparation, dosage, and administration.
124 Where the informant was agreeable, a walk through the village or surrounding "bush"
126 usually allowed collection of described plant specimens. In the few cases where the informant was either too busy or too infirm to accompany the investigator, the described plants were collected under the guidance of a direct relative or friend familiar with the habitat.

In some cases it was necessary to collect the described species with the aid of an agricultural officer, going only by Tongan
[824] plant names. Although this method is open to doubt in other regions of the Pacific because of variations in dialects, the Tongan language is constant as far as plant names are concerned. There are variations on descriptive names, but all base names of plants encountered were identical from one informant to another. This was verified through repeated checking.

[p.435-B]

124
126
Further reassurance regarding the consistency of plant names came while I was drying plant material later to be used as crude drug samples. As individual trays of desiccated leaves and bark were removed from copra driers, Tongan workers who had inquisitively gathered would attempt to call out the identity of the dried contents before the attached identifications were exposed. [824] Most men were able to identify the plant names correctly, relying solely on their ability to interpret the scents and shapes of the desiccated samples.

V. Enumeration of Tongan Medicinal Plants

126
128
Specimens of 59 species of plants were collected on Tongatapu Island. The plants were identified by using Yuncker (32) and also by a study of specimens available at the Herbarium of the Bishop Museum. Final determinations were established by Dr. A. C. Smith of the University of Hawaii. Voucher specimens are on deposit at the Bishop Museum.

Following is an enumeration of plants utilized as medicines by the Tongan people. 128 This list includes my own observations as well as those reported in the literature. 127 Families, genera, and species are arranged alphabetically. Tongan vernacular names and geographical distributions of each species, as given by Yuncker (32), are included. 128 The medicinal applications of each species in some other regions of the Pacific are enumerated to show their popularity in use.

278
137

AMARANTHACEAE
(Amaranth Family)

Achyranthes aspera L.

tamatama

This pantropical species is common throughout the archipelago.

278
171
In Tahiti the roots are used in treating mouth sores, toothache, and syphilitic sores (19). It is reported that the plant is employed in medicines in Niue (31). In the Philippines the leaves and roots are valued as diuretics and the sap for treating cataracts (21).

278
752
In Tonga the leaves are used to tie wounds after circumcision (32), and after

[p.436-A]

278
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TABLE VI
MEDICINAL PLANTS OF POST-EUROPEAN INTRODUCTION TO TONGA

Achyranthes aspera
Ageratum conyzoides
Annona muricata
Bidens pilosa
Cananga odorata
Capsicum frutescens
Catharanthus roseus
Curcuma longa
Erythrina variegata var. *orientalis*
Jatropha curcas
Lantana camara
Oxalis corniculata
Physalis angulata
Physalis peruviana
Premna amboinensis
Psidium guajava
Pueraria lobata
Ricinus communis
Triumfetta bartramia
Urena lobata
Wedelia biflora

000 gan did not exhibit these plant remedies out of respect for the foreigner or for fear that the stranger would bring bad luck upon the patient.

128 I do not pretend to have collected all of the plant remedies used in Tonga. One agricultural officer bade me farewell with the remark, "Well, I guess you got about 80% of them."

278
757 Of the crude drug samples collected, I would suggest that intensive analysis be undertaken for the constituents of *hehea*, *Syzygium corynocarpum*. This species was used by three individual practitioners for treating severe boils or tumors of the breast. *Syzygium corynocarpum* was common to all three remedies, while different plants made up each of the other concoctions. *Solanum uporo* is used widely in Tonga, and it may also be worthwhile to analyze.

Regarding my listing of "medicinal plants," it must be remembered that although the individual plants and their uses are listed separately, in many cases remedies are compounded of two or more species. The possibility that activity of some of these remedies

642 797 lieved that 'civilisation' and 'law and order' were the spontaneous results of evangelisation and would not have developed except in ground prepared by the missionaries. The missionaries themselves subscribed to this view as the following remarks show:

> A more hallowed and noble triumph, of Gospel truth, Tonga had never witnessed, than when the social and political advancement of its population was thus acknowledged, by king, chiefs, and commoners, to be the sole result of that enlightenment and saving grace, which the religion of Jesus Christ had imparted, and before which heathenism and tyranny had fallen to rise no more (West 1865:438).

Although these commentators were clearly convinced that all political changes in Tonga were to be directly attributed to the influence or interference of the Wesleyan missionaries, there is a need to re-examine this question from a less partisan viewpoint. 121 It is the purpose of this book to try to assess critically and objectively the significance of the part played by the Methodist missionaries in the political development of Tonga from the re-establishment of their mission in 1826 to the promulgation of the Tongan Constitution in 1875. It attempts to demythologise the firmly established notions consciously or unconsciously developed and perpetuated either for purposes of religious propaganda by the supporters of the mission or for denigration by its opponents. It tries to assess the overall impact which the missionaries had upon the Tongan way of life at this time and to determine whether, in fact, they were solely responsible for the political changes in Tonga, as some writers have claimed.

128 I would like to express my gratitude to all those who, in one way or another, kindly assisted me both in my research and in the preparation of this work. I feel indebted to so many that it is impossible to acknowledge everyone by name, but I would ask those whose names do not appear on these pages to accept my very sincere thanks for their help.

127 My thanks go to the staff of the following libraries and archives for their valuable assistance in making my research easier and more enjoyable: the National Library of Australia, Canberra; the Mitchell Library, Sydney; the Turnbull Library and the New Zealand National Archives in Wellington, New Zealand;

to Ian Diamond, former archivist of the Fiji Archives, and many 127
others in various institutions in Australia, New Zealand and Fiji.

I must acknowledge my indebtedness to the General Secretary of the Methodist Overseas Mission, the Reverend C. F. Gribble, O.B.E., and the Reverend E. V. Newman, who permitted the use of the Methodist Overseas Mission Archives; to Dr D. Williams of Trinity College, Auckland, for the use of the College archives; to the Reverend J. B. H. Robson, for the use of Methodist archives in Suva; to the Reverend G. Harris, then President of the Wesleyan Church in Tonga and to Bishop J. H. M. Rodgers, of the Roman Catholic Church, for the use of their respective archives at Nuku'alofa, and also to Father C. P. Butler and Father Mingam of the Marist Fathers' headquarters at Hunters Hill, Sydney, for the use of the monastery's archives, their useful criticisms of the sections on the Roman Catholic mission, and the translation of letters from the French.

My attention was initially drawn to the subject of this book by 128
the late Reverend R. G. Page, who had been a missionary in Tonga for thirty-eight years. To this remarkable and unassuming man I owe a tremendous debt of gratitude for his sound advice, encouragement and personal interest in my work. The valuable [127]
historical books and records which he had wisely and carefully collected for many years, and which have been generously given to me by his son Roger and daughter-in-law Mary, have been of invaluable help to this work. It is my deep regret that he did not live to see the completion of this book, which he had always wished.

I wish to express my sincere appreciation of the valuable 127
assistance given to me by Dr A. H. Wood and the late Dr E. E. V. Collocott, both ex-missionaries and authorities on the history of Tonga. Thanks are also due to Miss Gwenyth L. Davies, of Adelaide, Mrs Halliday of West Wyalong, Miss Oldmeadow of Melbourne, Miss Crosby of Sydney, the Reverend H. K. Moulton of London and other descendants of the Wesleyan missionaries, who gave me access to the journals and letters of their forebears who had served in Tonga during the period of this study; these documents proved to be invaluable sources of information.

This study has been enriched by the oral traditions collected 121
126

79: Lātūkefu H,I,M-4,5 (1964-1965) 1974
(1822-1875)
OU9 Tonga OU9

121 from various informants in Tonga during my field trip there from
November 1964 to February 1965. I am deeply indebted to the
126 Hon. Ve'ehala, Keeper of the Palace Records and Secretary of
the Traditional Committee, for the wealth of information he kindly
115 gave me in answer to my inquiries. Thanks are also due to the
following informants: Tu'i'āfitu of Makave, Vava'u; the late
Fe'iloakitau Kaho and the late Sione Filipe Tongilava of Kolofo'ou;
the late Molitoni Fīnau of Nukunuku, 'Uhatafe of Mu'a, Siola'ā
Soakai of Hihifo, Ha'apai, and many others, particularly my
father, the late Siosiua 'Alopī Lātūkefu of Kolovai, who so
generously gave of their time.

To Dr W. N. Gunson of the Department of Pacific History,
128 Australian National University, I owe an immeasurable debt, and
it is impossible to convey fully the extent of his patient guidance
and encouragement throughout the preparation of my thesis which
formed the basis of this book. I also wish to acknowledge my
indebtedness to the late Professor J. W. Davidson for the generous
support given to me by his Department and for his invaluable
criticisms of certain aspects of the manuscripts; to Mr Harry
Maude, Dr Francis West, Dr Dorothy Shineberg and Dr Deryck
Scarr, who at all times showed their readiness to discuss and
criticise this work; to Dr Alaric Maude and Dr Noel Rutherford,
both students of Tongan geography and history, who read portions of this manuscript and offered valuable suggestions. Thanks
are also due to Professor D. J. N. Denoon of the History Department, University of Papua New Guinea, who has read the whole
manuscript and made very useful comments.

I would also like to express my thanks to Mrs Coral Wong
and Mrs Joan Stephenson of Port Moresby, who carried out the
task of typing and preparing this manuscript; and to my wife
Ruth for her devoted, untiring assistance and moral support during
the preparation of this book. Thanks also to Lotte and 'Alopī who
had to put up with their parents' preoccupation with this work.

Lastly, with deep gratitude and affection, I wish to express
115 my great indebtedness to Her Majesty, the late Queen Sālote Tupou
of Tonga, for her gracious interest and invaluable help in this
work. I was deeply privileged and greatly honoured by an invitation, which she extended to me, to spend four weeks with her

Abbreviations

AA	*American Anthropologist*
ANU	Australian National University, Canberra
ATL	Alexander Turnbull Library, Wellington
JPH	*The Journal of Pacific History*
JPS	*Journal of the Polynesian Society*
JRAI	*Journal of the Royal Anthropological Institute*
JRGS	*Journal of the Royal Geographical Society*
KASP	*Kroeber Anthropological Society Papers*
ML	Mitchell Library, Sydney
MOM	Methodist Overseas Mission
NLA	National Library of Australia, Canberra
NZNA	New Zealand National Archives, Wellington
RAWMMS	*The Report of the Australasian Wesleyan-Methodist Missionary society*
TCL	Trinity College Library, Auckland
TML	Tonga Missionary Letters
TSL	Tonga Sundry Letters
WMH	Wesleyan Mission House, London
WML	Wesleyan Missionary Letters, ATL
WMM	War Memorial Museum, Auckland
WMMS	Wesleyan Methodist Missionary Society
WMMSA	Wesleyan Methodist Missionary Society of Australasia
W-M Mag.	*Wesleyan-Methodist Magazine*
WMN	*Wesleyan Missionary Notices*
WMSP	Wesleyan Missionary Society Papers, ATL

[p.xviii is blank]

423
178 settling people on their farms, and to encourage movement to
more sparsely populated districts, the Land Act of 1927 provided
[179] for the grant of twelve and three-eighths acres of agricultural
land to men willing to forgo their town allotment. Little came
of the provision, however, only twenty-three applications being
received up to 1934, when the scheme was enlarged to permit
grants of fifteen acres. Although several estates on Tongatapu
were laid out in fifteen-acre holdings, population growth has led
to all but one being resubdivided into eight-and-a-quarter-acre
allotments, and a recent amendment has reduced the area that
can be granted under this provision to ten acres.

Finally, there have been some changes in the estates. In 1882
423 hereditary estates *(tofi'a)* were granted to thirty-six titleholders,
565 thirty of them nobles and six of them *matapule* who, although
178 given estates, were not made nobles. Any land not granted to a
noble or *matapule ma'u tofi'a* became the estate of the King,
but in 1891 Tupou handed over most of this land to the govern-
ment (Thomson 1894:231). Two more nobles were created and
granted estates by Tupou II and one by Queen Salote. There
423 are thus at present several types of estate: Royal estates belonging
565 to the King, Royal Family estates held jointly by the Royal
Family, hereditary estates belonging to the nobles and a few
matapule, and government estates under the direct control of
[361] the Minister of Lands. About sixty per cent of the population
lives on hereditary estates.

Having outlined the development of the system as it exists in
128 law we may now attempt to assess its effectiveness in practice.
The following sections will discuss the acquisition and holding
of land, the distribution of agricultural land between households
and individuals, and the question of individual tenure and its
effect on agricultural production.

ACQUIRING AND HOLDING LAND

423 The most common and the easiest way to acquire land is through
428 inheritance, but land cannot be willed and the heir to an allot-
[425] ment is determined by precise rules laid down in the Land Act.
On the death of a landholder his widow is entitled to a life
[589] interest in her husband's town and tax allotments, but she loses
this right if she remarries or is found by the Land Court to have
[684] committed fornication or adultery. This latter provision is oc-
casionally used but in recent years actions based on it have
rarely, if ever, been successful (see Hunter 1963:109-10).

276 because the personal rank contains the added element of
574 matrilineal succession from a Tu'i Tonga Fefine.
554
565 My hypothesis is that the kava ceremonial provides a charter for this discrepancy. I postulate that although the seating arrangements are strictly by title the actual presentation of the kava represents the legendary maternal ancestry of the individual recipients.

With this possibility in mind let us turn to consider the
128 mythology.

539 Bott tells us that she recorded two versions of 'The Myth of the
773 Origin of Kava' and draws the reader's attention to four other versions printed by Gifford (1924, pp. 71–5). The version that Bott herself provides is as follows:

> *Bott I*
>
> One day the King of Tonga went fishing with a friend. They did not catch anything, and as they were tired and hungry they called in at the little island of 'Eueiki to get something to eat. At that time there was only one couple living on the island and they had one child, a daughter, whose name was Kava'onau. (In some versions the name is abbreviated to 'Kava'.) She had leprosy. It was a time of famine and the only food the couple had left was a large kape plant (*Alocasia macrorrhiza*) which stood near the beach. When the King landed he sat down to rest against this plant. When the couple realized who their guest was they set about making an earth oven but when they came to get their sole remaining food plant, they could not use it because the King was leaning on it. The King's friend saw the couple hit something in their house and bring it out to be baked in the earth oven. He saw that they had killed their daughter because they had nothing else to give their King. The King's friend told the King what the couple had done. The King was deeply moved by their sacrifice. He rose up immediately and returned to the main island, telling the couple to bury their child properly.
>
> Two plants grew from the grave, one from the head and one from the foot. One day the couple saw a mouse bite the first plant, stagger a bit, and then bite the second plant, after which he recovered his balance.
>
> One day Lo'au came to the island and the couple told him all that had happened . . . When Lo'au heard the couple's story he

84: Leach E-4 (no date) 1972 OU9 Tonga OU9

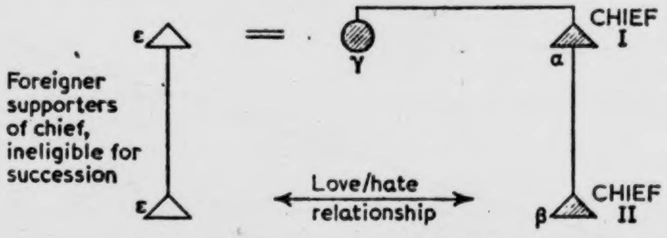
Appendix

EDMUND LEACH

The following supplementary analysis is the result of discussion between the editor and the author. 128

Patrilineal structures of the type represented by the reduced model shown in *Figure I* are quite familiar and have been extensively discussed in a polemical body of literature that emphasizes, as a rule, the ambiguous relationship between ε and his mother's brother α. In a society that stresses the theme of perpetual succession the relationship between the structural cross-cousins (β/ε) is interchangeable with that of mother's brother/sister's son (α/ε). Much of the argument deployed in Radcliffe-Brown (1924) and connected literature, as cited in Goody (1969), could be relevant to the Tongan case, and indeed Tonga features in that literature (cf. Goody, 1969, p. 81). 602 604 171

Figure I



[565
607]

A comparable matrilineal structure is that made famous by Malinowski's discussion of the relation between the Trobriand chief and his sons and heirs. It can be represented by *Figure II.*

[p. 283]

MUSICAL ACCULTURATION IN TONGA

By MAJOR R. RAVEN-HART

533 177 121 A FEATURE which appears to have received little attention in anthropological study is that of the changes made to adapt " Western " music to the indigenous musical taste. It is suggested that a study of such changes might lead to the establishing of a musical idiom for the area concerned, in the way that the Scottish " snap " and the Maori *hianga*-slide have been established as typifying those idioms. Such a study should be of particular value where the original indigenous music has been entirely, or almost entirely lost, as is regrettably the case in most of " Trinesia " (to coin a term to embrace Poly-, Micro- and Melanesia).

It is obvious how such changes occur, and in fact must occur, where the original tunes are not readily available in printed form. Someone from a village, for example, hears on a visit to a town a new and attractive tune in church or on the street. He is unlikely to know the staff notation ; he is more likely to carry the tune, more or less correctly, in his head than to write it down then and there in the very practical numerical " sol-fa " notation used on many of the islands. On his return home he sings the tune, almost inevitably with variants to suit himself ; others pick it up from him, and in their turn introduce their own variants. Finally, a new version settles into use.

121 [128] [101] During a ten-week stay on Vava'u Island many such variants were noted ; the help given by the Rev. K. D. Grove, Chairman of the Methodist District, must be gratefully acknowledged, as also that from Mr. P. Latu, choirmaster, and Mr. L. Manu, choir member of the Methodist Church ; the Rev. Fr. Gregory and Mr. Tapueluelu, Headmaster of St. Joseph's (Roman Catholic) school ; and from many others, ranging from small boys to professional musicians.

[128] It had not been thought probable that any material could be collected during a two-week stay at Apia, but thanks to the Rev. P. Kightley of the L.M.S. there, and to the boys of his school, some interesting variants were obtained. Samoan material is enclosed in square brackets.

128 The following is a small selection from the material collected, well-known tunes having been preferred whenever possible. The author would be very grateful for any further material, especially from the less accessible islands (Cook, Nieue, Gilbert, etc.). To simplify typography, a modified sol-fa notation has been used, " x " standing for a rest, and the beats being divided by colons. Notes within the octave upwards from the keynote are in roman capitals, below that keynote in lower-case italics, and above that octave in parentheses.

Of the 33 titles of nobility and 6 titles of estate-holding *matāpules*, 16 691
titles (15 noble, 1 *matāpule*) have been the subjects of succession disputes 565
investigated and adjudicated by the Land Court from the 1920's to the present. 428
From my data on 18 Land Court decisions concerning noble succession (from 1924-1960), the defendant (i.e., the title-holder) was upheld in 11 cases, and the plaintiff won in 7 cases. Of the 18 Land Court decisions, 14 were fully considered by Privy Council on appeal. The Privy Council upheld 11 Land Court decisions (4 of which were for the plaintiff, 7 for the defendant).[9]

An additional 6 titles have been the subject of informally expressed and 565
rumored claims by non title-holding lines, on the basis of specific legal criteria,
but these putative claims have never been heard or adjudicated by Land Court. 428
Also, there have been informal claims to most noble titles with varying degrees
of overt expression but these have had no legal basis. Such claims are 565
grounded in traditional beliefs about holding chiefly status that have not been 428
incorporated in the legal definition of title-holding or are based on pre-1875 671
conditions of chiefly succession in certain patri-lines, which the legal adjudication
of titles, established in 1875 as a nobility, ignores. These claims to chiefly [626]
status by vicarious association with legally recognized title-holding lines can never be litigated and therefore must be expressed subtly and informally by processes such as gossip in local communities.

A number of litigable disputes arose soon after the initiation of the Land 691
Court. These disputes generally reflected the surfacing in an appropriate forum
of claims to titles which had been anomalously appointed in terms of the law 565
during the reigns of Tupou I and II. Other major succession cases occasionally 428
arose in Land Court between the 1920's and 1960. The last major case was
adjudicated on appeal in 1960.[10] Although the law has not changed since that 643
time, potential disputes have either not been formally adjudicated (in those
circumstances where claimants have made petitions to have their cases heard, 565
they have not been granted) or they have been considered, if not resolved, 428
by some informal process outside the jurisdiction of the Land Court and 691
involving the present monarch, the first Tongan to have gained university legal [695]
qualifications. As will be seen below, the present monarch appears to be more

---

[9] The major source on title cases is Hunter (1963), who was formerly the Judge of
the Supreme Court. I have done intensive background research on four succession disputes, [124]
including direct contact with participants and descendants of participants. Perhaps the most valuable source on the succession disputes are the Tongan lawyers who specialized in arguing them. Of these, two are deceased, but the son of one is now a prominent lawyer and was indirectly involved in his father's cases. My most stimulating informant was a retired lawyer, who was an important participant, usually as a defence attorney, in
a majority of the title cases. In referring to specific disputes in this paper, I use [128]
pseudonyms for the names of titles and places, and letters to indicate specific individuals except for the dispute over the Kalaniuvalu title, a case of particular historical interest.

[10] A title case was heard in Land Court in 1975, after my departure from Tonga, but no judgment was given, because of insufficient evidence, and the matter was referred to Privy Council.

565 careful than his predecessor in thoroughly investigating possible successors to
428 titles before appointing a new title-holder, thus diminishing the possibility of
691 a court dispute challenging one of his own appointments.

[643] Some disputes were settled by a single process of adjudication (in Land
[695] Court and then on appeal) while others have repeatedly surfaced, as succeeding generations of claimants petitioned Land Court and Privy Council to rehear claims to titles that their predecessors had lost or failed to gain. A dispute concerning the Vakalā title was one of two disputes (the other concerning the Mana'ia title) that inaugurated the title cases in Land Court. Ironically a related dispute concerning the same title a generation later marked the last major title case to be adjudicated by the Land Court and Privy
● 128 Council in recent times. The Vakalā case will be analyzed in more detail below. I do not intend to deal here with the full complexity and range of problems addressed in the adjudication of the succession disputes during the interval from 1920 to 1960. Rather, the following two sections will summarize major issues specifically raised within the legal framework of adjudication and the more general issues raised by the cases with regard to the position of the nobility as a traditionally and legally defined segment of modern society.

Specific Issues Raised Within Title Succession Cases

565 Succession cases were most often argued and adjudicated on the inter-
428 pretation of points of law. It is perhaps ironic that the most potentially customary
671 of legal issues — succession to chiefly titles — was the jurisdiction of English judges in Land Court or as advisors in Privy Council. Faced with a number
695 of cases arising from legally irregular appointments by Tupou I at the time of
[698] the formation of the nobility, the first Land Court Judge (J. Scott) established the practice of not considering any arguments about conditions before the giving of the Constitution (in the era of tradition and custom). Instead, the succession law must apply to those lines appointed and gazetted at the time of original appointment of hereditary title-holders regardless of previous succession conditions. Furthermore, succession was contingent solely upon the rules of descent defined by the law and not upon appointment by the monarch. The latter was superfluous given a clearly defined law of succession. These views remained the virtual doctrine of successive Land Court Judges in the consideration of later title disputes. The Privy Council on appeal from Land Court decisions was remarkably consistent over the years in upholding the decisions of Land Court judges, but since most of the Privy Council appeal deliberations were not published, it is not known whether it based its decisions on the same or different arguments than those made by the lower court. Nonetheless, there was a definite bias in the adjudication of title cases against consideration of substantive issues of custom (or politics) if at all possible and for the resolution of disputes on legal points alone.

The custom, which was an underlying issue in the first Vakalā case, 671
eventually came to be explicitly argued in a number of later cases, and was 565
finally codified in the 1953 Constitutional amendment (to Clause 111 on 597
succession), concerned traditional adoption practices among chiefly kin groups. Adoption is the only example of the codification of custom in Tongan law. Codification occurred as a direct result of the continued appearance of an adoption issue in succession disputes. Adoption was and is a major feature 597
of, not only Tongan, but Polynesian social organization in general. It is not [171]
[128]

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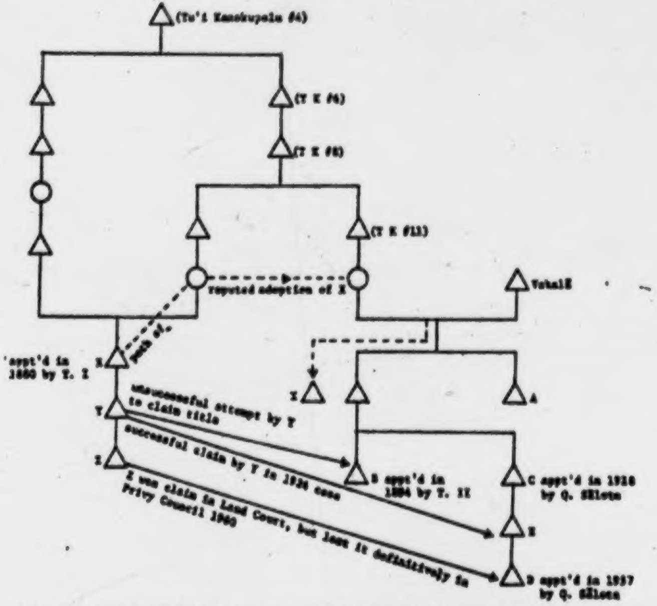
(Tu'i Kanokupolu #4)
(T K #6)
(T K #8)
(T K #11)
reputed adoption of X
Vakalā
path of
'appt'd in 1880 by T. I
X
Y
Z
unsuccessful attempt by Y to claim title
successful claim by Y in 1926 case
Z won claim in Land Court, but lost it definitively in Privy Council 1960
X
A
B appt'd in 1884 by T. II
C appt'd in 1918 by Q. Sālote
E
D appt'd in 1937 by Q. Sālote

Figure 1—Genealogical background of the Vakalā succession disputes.

intended to discuss adoption as such here, other than to trace how it developed 597
as an issue in the title succession cases and finally to evaluate its significance 128
for the Vakalā case. The facts of the Vakalā case are summarized below.

In his 1880 appointments, Tupou I not only elevated the status of the 565
matāpule title Vakalā to the level of nobility; he also appointed a man, X, to
the title who had gained renown as a warrior (*to'a*) and leader in support of [643]
Tupou I during his brief wars of unification, but who in retrospect had no blood connection with the previous descent line of Vakalā (see Fig. 1).
Presumably, X's successors were to be the permanent line holding the Vakalā [428]

114 I am also indebted to both Mr. Edwin H. Bryan of the Information Service of the Bernice P. Bishop Museum in Honolulu, who assisted me in obtaining valuable archival data, and Dr. Robert F. Thorne of the Rancho Santa Ana Botanic Garden of Claremont College, who helped in the identification of botanical specimens.

122 Special thanks goes to the National Science Foundation for financial assistance and to the Minister of Lands, the Honorable Laufilitonga Tuita, the Prime Minister, His Royal Highness Prince Fatefehi Tu'ipelehake, and, His Majesty King Taufa'ahau Tupou IV, who granted me personal audiences and allowed me to conduct my research in Tonga.

128 I also wish to thank Zail Coffman and Francis Evanisko of the University of California, Santa Barbara and Ramesh Chandran of the University of the South Pacific, who drew many of the maps from my manuscript copies, Elizabeth Mendly, who typed the first draft in Santa Barbara, and to Sheila Raj, who helped with the second draft and Susana Yabaki, Akata Fatiaki and Kiran Sharma, who typed the final draft.

115
128 Special thanks is also due to my mother-in-law, Mele Helu, whose Tongan cooking, hospitality and timely explanations of uses of plants and cultural features gave me considerable insight into the Tongan way of life, to my good friends and colleagues, Jack Estes and Les Senger of the Geography Department, University of California, Santa Barbara and Cros Walsh of the Geography Department at the

115 University of the South Pacific, Suva, Fiji, who helped both in editing and in relieving me of some other responsibilities, which allowed me to devote time to completing this dissertation.
128

123 Deep gratitude and thanks is extended to the countless farmers, market vendors and other Tongans who, through their understanding, their cheerfulness and their willingness to share part of their lives and cultural hertage with me, made the research in Tonga one of the most enjoyable and enlightening years of my life.

128
114 Last but not least, is the deep appreciation I have for the help and understanding given unselfishly by my wife Konai, who, despite her heavy involvement in her own studies, teaching responsibilities and poetry writing, proof read countless pages, helped in the drawing of maps and gathering field data, and most of all, gave me encouragement and moral support throughout the past four years.

000 Finally, none of the above are responsible for any shortcomings in this work. I am alone responsible for the work which follows and for any inaccuracies which may be present.

241 433 The present Tongan farmers have a wealth of empirical knowledge about their environment and traditional crops and cropping practices. Unfortunately, as suggested by Schultz, new forms of capital are needed to provide for the future. 241 433 178 177 242 Foreign degrees in agricultural science, agricultural machinery, pesticides and fertilizers, breeding stock and planting material from overseas, and technical and financial aid are already beginning to bring about changes in the traditional agricultural system.

Nature of Study

128 It is the primary aim of this dissertation to look at the Tongan agricultural system as it existed in 1971-1972. Particular emphasis will be placed on plant species, plant associations, and selected agricultural practices. 121 There are two major reasons for conducting an investigation of this nature. The first is the general concern which geographers have for man's relationship with and effect on the earth. A much more immediate reason, however, is that because steadily increasing population pressure is forcing agricultural systems to change dramatically, better understanding of traditional agricultural systems can help effect change with minimum cultural disruption and shock.

Studies which have dealt with some aspects of traditional Pacific Island agricultural systems are numerous. Most of these fall into four general categories:
1) general descriptions of the agricultural landscape and

127 The land tenure system was studied using land
registers and survey maps with the help of the staff of
121 the Land and Survey Department, Nuku'alofa. The aim was
to gather precise data on the total number and area of
the different types of land holdings, which could in turn
be used as a sampling frame for statistical surveys.

127 Statistical data on the export of copra, bananas, and
other produce were gathered from records available at the
121 Tonga Copra and Tonga Produce Boards. These data were
439 important to the study because a large percentage of the
produce exported through these Boards originates from the
small landholders' bush allotments.

125 A year-long study of Talamahu Market in the capital
443 city of Nuku'alofa was carried out. Talamahu Market is
the only permanent market place in the Kingdom which serves
125 as an outlet for local produce. Throughout 1971 and the
beginning of 1972, the market was visited at least once a
week to determine the seasonality and types and quantities
of produce that were available.

125 On Saturday, January 22, 1972 from 6:00 A.M. to
114 10:00 P.M., seven senior high school students helped make
a complete inventory of the amount, origin, destination,
and means of transportation of all available commodities
for a single day.

127 Black-and-white aerial photography (at a scale of
128 1:20,000), flown in August 1968 for the British Directorate

127 of Overseas Surveys, was used in the construction of an
128 agricultural land use/vegetation map of Tongatapu and a transect across the island. The agricultural land use/vegetation map was constructed on a cellulose acetate overlay using a photomosaic (46 photos). Most boundaries were later field checked and verified or corrected as necessary.

125 *The transect across the island* was constructed using a single photo of a 2.04 mile(3.29 kilometer) strip between the windward south coast (the liku) and the northern lagoon (Tahi Kele). The transect was drawn on an acetate overlay and sectioned into 52 equal segments of approximately 69 yards (63.3 meters) each. The entire length of the transect was then paced, and at each 69 yard interval the crop types, plant species, agricultural practices, and
133 elevational changes were recorded. The transect illustrates
137 the heterogeneity of the Tongan agricultural landscape from the steep windward south coast, which is characterized by littoral forest and savanna, to the low-lying leeward north coast, which is characterized by swamp and mangrove forests.

125 Random ground reconnaissance surveys were made of both the bush allotments ('api 'uta) and the town allotments ('api kolo) to gather accurate statistical data on
[423] the nature of the agricultural system. The land tenure
[241] system in Tonga is ideally suited to a random sampling survey because all of these allotments have been surveyed

125 [114] administer the questionnaire.

Table 1. Number of questionnaires administered to representative village in each district.

District	Village	No. of Questionnaires
Nuku'alofa	Kolomotu'a	23
	Kolofo'ou	13
	Ma'ufanga	8
Hihifo	Kolovai	18
Vaheloto	Ha'ateiho	22
	Houma	21
Hahake	Haveluliku	7
	Fatumu	17
	Kolonga	21
TOTAL		150

126 [124] Throughout the year, plant specimens were collected from cultivated and natural vegetation. Folk names were obtained from Tongan informants, especially at the Talamahu Market where a consensus of opinion on the "correct" Tongan
126 name could be reached. These identifications in Tongan
128 were then cross-referenced in Yuncker's Plants of Tonga (1959) for tentative scientific names. Research was also carried out in the Agriculture Department's Herbarium, which contains specimens collected by H. Huǒrlimann (1951), T.G. Yuncker (1953), and E. Lawrence (1959). Fresh specimens collected in the field were compared with this collection to verify their identity. In addition, 193 herbarium specimens were collected and posted to California where

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128

they were subsequently identified with the help of R.G. Thorne of the Rancho Santa Ana Botanic Garden of Claremont College. Suitable specimens were deposited in the Rancho Santa Ana herbarium.

241 establish itself. Unfortunately, on Tongatapu, owing to
137 the limited land area, only in rare cases has the vegeta-
311 tion been allowed to return to a near climax community,
and little of the original primary vegetation remains
except along the coast and in a few protected enclaves.
137 Even in these areas, the vegetation has probably been
altered to some extent by over 3000 years of Tongan
occupance (Groube, 1971: 313).

114 A number of comprehensive studies of the Tongan flora
128 have been made (Hemsley, 1894; Burkill, 1901; and Yuncker,
1959); these studies however, have focused on the iden-
tification and listing of species and their uses and not
on plant communities and their areal distribution, which
is the focus of the following vegetational description.
The vegetation is here classified into eleven types
128 (Figure 8). These include primary vegetation types:
1) coastal littoral forest; 2) coastal savanna; 3) swamp
forest; 4) marshland; 5) mangrove swamps; 6) tropical
lowland forest; and secondary vegetation which is treated
separately. These types are based on physiognomic differ-
ences that were observable on the ground and on 1: 20,000
black-and-white aerial photography. Each of these types
was studied on the ground and subsequently mapped utiliz-
137 ing 1968 aerial photography. These associations are not
241 all directly involved in the agricultural system, but
311 they do reflect the agricultural potential of the different

[TEXT CONTINUED ON PAGE 39]

137 241 [311] 128 portions of Tongatapu. Moreover, they serve as reservoirs or gene pools for many plant species which are part of the agricultural system. (Appendix E[A] lists scientific, Tongan, common English names and the use of each plant species which was observed as being a major component of the flora.)

137 311 *Coastal Littoral Forest*

The coastal littoral forest is characteristically found on sandy or rocky soil in areas exposed to strong winds and salt spray. The major concentrations on Tongatapu are found along the east and west coasts of the island. 137 This association is characterized almost entirely by pantropic species that are common in the tropical Pacific Ocean.

On the sandy or rocky seaward edge of the forest, low, salt-tolerant vegetation predominates and depending on the particular area is comprised of the following dominant species: *Scaevola frutescens*, *Canavalia sericea*, *Ipomoea pes-caprae*, *Vigna marina*, *Wedelia biflora*, *Thuarea involuta*, *Spinifex littoreus*, *Pemphis acidula*, *Suriana maritima*, *Sesuvium portulacastrum*, *Euphorbia atoto*, *Cassytha filiformis*, *Fimbristylis cymosa*, *Derris trifoliata*, *Phaleria disperma*, *Vitex trifolia*, *Bikkia tetrandra*, *Colubrina asiatica*, and *Pandanus spp*.

Dense littoral forest generally begins directly behind this zone of low, salt tolerant vegetation and is characterised by larger trees including the following species: *Hibiscus tiliaceus*, *Macaranga harveyana*, *Barringtonia*

[A] [See Category 137, pp. 377-421--Analyst.]

137 simplicifolium, Alyxia stellata and Dryopteris invisa.
Lianas and epiphytes include Entada phaseoloides and
Asplenium nidus. A fungus, Auricularia polytricha, is also
found growing on dead logs during rainy spells. In the
more open and cutover sites, the exotics Lantana camara and
Psidium guajava plus Passiflora maliformis, Dioscorea
bulbifera, Digitaria pruriens, and Paspalum conjugatum are
among the dominant understory species and often form dense
thickets.

311 Regardless of the species composition, these remaining
stands of tropical lowland forest represent probably
the best potential agricultural land on Tongatapu with
[241] respect to soil fertility. These areas have either never
been cultivated or have been under fallow for sufficient
time to allow for considerable replenishment of organic
[313] material and plant nutrients. Furthermore, these stands
are valuable sources of timber, firewood, and traditional
[439] medicines. The dried fungus is exported to Hong Kong.

311 Plant Species Important in Cropland and Secondary Vegetation

241 The cropland and secondary vegetation, which comprise
137 over 90 percent of the total land area of Tongatapu, are
characterized by a succession of gardens and fallow areas
128 in various stages of regrowth. A detailed description of
241 this vegetation, which is comprised largely of introduced
137 species, constitutes much of the core of this dissertation.

128 The individual species are discussed in this section.

241 137 128 A great diversity of introduced species are commonly found in cropping sequences and secondary vegetation associations on the island. The groups of plants that will be discussed include: important staple and commercial crops; supplementary food plants; important non-food plants; important tree species; and common weed and secondary vegetation species. A comprehensive listing of these plant species and their uses is found in Appendix E. A

241 Important Staple and Commercial Crops

Staple food plants and commercial crops are the most important crops on bush allotments in terms of total acreage and include the following species:

244 [439] The greater yam - 'ufi (Dioscorea alata). The greater yam is traditionally the most prestigious of Tongan subsistence crops as well as being a minor export crop. Its center of origin is believed to be tropical Southeast Asia (Herklots, 1972: 418). It is known only in cultivation and was introduced prior to European contact. Numerous kinds of yams are recognized by Tongans; Whitecomb (1930: 19-20) listed 114 different kinds. The major kinds now cultivated are the kahokaho (which is considered the best and most prestigious), kaumeile, maho'a'a, kulo, kivi, takulevu, voli, and tamuni. Yams are generally planted from May through December, take six months to one year to mature depending on the variety or desired size, and are

A [See Category 137, pp. 377-431--Analyst.]

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where European institutions such as life insurance, workman's compensation, social security, and freehold land are not available.

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[434]
[182]
Although the primary function of the agricultural system is to provide for the Tongan family's everyday subsistence needs, a secondary function, which at times takes on major importance, is to provide the owner with products to be used, either directly or indirectly, in fulfilling his social obligations, both to his kinsmen and to the society as a whole. [431] [437] Accordingly, although European goods and cash are being increasingly used, exchanges or presentations of traditional Tongan products, such as fine mats, tapa cloth, yams, pigs, kava, and sugar cane, are still the predominant means of maintaining such ties. ●128 In order to gain a better understanding of their inter-relationship with the agricultural system, a brief description and analysis of the well-ordered ties within the Tongan society is necessary. These ties or obligations fall into two general classes: kinship ties and social ties. The following treatment of Tongan social structure is based on the author's personal observations and works by Gifford (1927), Beaglehole and Beaglehole (1938), Nayacakalou (1959), Maude (1965), Aoyagi (1966), Latukefu (1967), Kaeppler (1971), and Morton (1972).

601
612
Kinship Ties

The most common Tongan terms denoting personal kind-

423
565 the hereditary estates on Tongatapu is approximately 43,400 acres (17,600 hectares), approximately 68 percent of Tongatapu.
423 The remaining 32 percent, approximately 20,300 acres(8,200 hectares), is made up of Crown land.
128 The map of "Hereditary Estates and Crown Lands of Tongatapu" shows the distribution of these types of tenure (Figure 9).

423 The bush and town allotments, leasehold land, land for public purposes, and land to be used by the families of hereditary estate holders are all derived from subdivisions of the hereditary estate and Crown land (Figure 1). Before the cadastral survey of 1957, only a small area (2,564 tax allotments in the entire Kingdom) had been subdivided into statutory bush allotments of 8 1/4 acres. In many cases "customary holdings", both surveyed and unsurveyed, still remained (Maude, 1965:101). By 1971, however, surveyed statutory 8 1/4 acre allotments made up a vast majority of the bush allotments found on Tongatapu. Also included in the category of statutory allotments are 12 3/8 and 15 acre allotments which were provided for under the Land Act. Most of the 15 acre allotments are found north of Fua'amotu on the estates of Tungi and Tu'ipelehake; the 12 3/8 acre allotments, are fewer in number and scattered throughout Tongatapu.

The two major areas of surveyed non-statutory allotments are in the area north of Fo'ui in western Tongatapu and in the area south of Ma'ufanga (eastern Nuku'alofa)

A [See Category 423, p. 11--Analyst.]

423 in north-central Tongatapu (Figure 1). According to Maude
423 (1965:102), these areas have never been re-divided into
182 8 1/4 acre allotments because, in these areas of high population density, the customary allotments have always been smaller and enlarging them to statutory size would have resulted in the dispossession of a great number of land holders. In central and eastern Tongatapu, however, where population densities are less and customary holdings were characteristically larger, it has been possible to subdivide these into statutory allotments.

423 Although there are still some oversized customary holdings which are unsurveyed, the only significantly oversized holdings which are still considered "tax allotments" (the legal term for bush allotments) are four customary allotments of 147, 137, 61 and 23 acres (59,55, 25 and 9 hectares) which were granted to holders by Tu'ipelehake on the portion of his estate known as Lafalafa, north of Fua'amotu.

Including all bush allotments, surveyed and nonsurveyed, statutory and customary allotments, as of December
[128] 1971, there were 5,652 bush allotments on Tongatapu. (This figure is based on careful determination of the nature of tenure for every parcel of land by the author and an assistant in consultation with the Chief Draughtsman and other personnel of the Lands and Survey Department). These 5,652 allotments comprised approximately 45,200 acres

423 Minister, into 56 4 1/8 acre (1.7 hectares) allotments; and 11 other 4 acre (1.6 hectares) allotments resulting from subdivision of expired leasehold land southeast of Utulau.

423 361 Town allotments, which are supposed to be 2/5 acre (0.2 hectares) in size, are located in the 59 town reserves throughout Tongatapu (Figure 3).A Each of these town reserves is subdivided into numerous town allotments or 'api kolo. [128] Figures 10 and 11 are examples of the subdivision of the town reserves of Houma and Kolonga into individual town allotments ('api kolo). [127] There is very little information regarding the exact number and acreage of town allotments on Tongatapu. Nevertheless, based on figures in the Report of the Lands and Survey Department (Government of Tonga, 1971a:Appendix I), there are probably between 4,000 and 5,000 town allotments. [114] [162] Hardaker (1971:25) quotes a figure of over 13,000 town allotments for Tongatapu, but this seems unlikely considering that the total number of households on Tongatapu, at the 1966 census, was only just over 6,000. Most allotments are probably close to the statutory size although there are many oversized and undersized allotments.

423 311 The portions of hereditary estates which have been reserved for the holders and their families comprise about 3,100 acres (1,255 hectares). These parcels are generally used for food or commercial crops. In some cases, the land has been put into plantations for the production of copra

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A [See Category 361, p. 14--Analyst.]

[TEXT CONTINUED ON PAGE

423 might be better tabulated on the basis of the household,
592 the major economic and social unit. In the survey of 150
households throughout Tongatapu, it was found that 89
percent had some access to bush allotments (Table 12).
423 Because the survey was administered to households that were
592 located on town allotments, all sample households had
128 either permanent or temporary access to a town allotment
[125] (Table 13). If the survey had been administered on a
family or individual basis there would undoubtedly have
been a number of people without rights to town allotments.

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423
[128] Table 11. Number of eligible males with and without bush allotments (Nuku'alofa figures include Haveluloto; Tongatapu figures do not include 'Atata and 'Euaiki).

	With	%	Without	%	Not Stated	%	Total
Nuku'alofa	1328	32	2757	67	23	1	4108
Tongatapu	4774	39	7479	61	69	1	12322
Other Islands	3531	46	4074	53	47	1	7652
Tonga	8305	42	11553	58	116	1	19974

Source: 1966 Census:89-96.

423 In those villages outside of Nuku'alofa, only four out
592 of 105 households had no access to tax allotments. In
369 Nuku'lofa (Kolomotu'a, Kolofo'ou and Ma'ufanga), however,
12 our of 45 had no access to bush allotments (Table 12).

463 around their own households, including preparation of
462 agricultural crops and handicrafts, and working in dooryard
162 gardens or on the bush allotments.

463 A high percentage of Tongan males employed in agriculture is also shown by the survey of households conducted by the author in 1971 (Table 17). These data show a majority were full-time farmers and that another 15 percent had some other employment, such as a village storekeeper, part-time banana inspectors/or a lay preachers, but still considered themselves primarily farmers. Out of 149 households, there were 39 households with more than one full-time farmer (one household with five; two with four; eight
[461] with three; and 28 with two). Of the 36 heads of households who considered themselves full-time wage workers, 58 percent put in some time, ranging from 1 1/2 to 16 hours per week farming on their allotments. Of these 36 full-time wage earners, five did not own allotments.

262 Subsistence Needs

241 The Tongan diet continues to be largely dependent on staple and subsidiary crops grown on traditional garden
262 allotments. In a listing of the relative importance of
439 items in the diet (Table 18), only a few imported items
128 such as bread (made from imported ingredients), mutton,
[263] and canned fish rank high on the list. Imported luxury items used more for flavor than nutrition, such as canned fruits, gelatin desserts, ice cream, sugar, salt, and canned or dried milk, are not listed.

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[128]

Table 18. Relative importance of foodstuffs, based on number of days per year on which a given product is consumed. (Averages of a random sample of 25 households).

I = Imported from overseas, P = Partially imported.

Item	Days/Year	Item	Days/Year
Coconut	343.3	Green onions	66.6
Manioc	340.2	Sugar cane	66.0
Bread(I-ingredients)	257.8	Green plantain	63.3
Taro leaves	233.7	Ripe bananas	54.6
Green bananas	223.7	Tomatoes	51.2
Taro *Futuna*	211.0	Butter (I)	47.2
Taro *tea*	179.2	Corn	46.4
Edible *Hibiscus*	152.5	Watermelon	45.5
Mutton (I)	143.0	Manioc bread	43.8
Flour (I)	114.3	Sea weed	42.9
Papaya	104.3	Eggs	35.9
Canned fish (I)	100.3	Pineapple	34.5
Fresh fish	100.0	Chicken	33.4
Sweet potato	98.5	Canned corned beef	31.8
Onions (P)	94.3	Tahitian chestnut	29.0
Giant taro	77.0	Cabbage	24.2
Breadfruit	75.2	Pork (P)	23.2
Yams	73.3	Beef (P)	23.0
Shellfish	67.0	Beans	20.8

000 Tongan men and women. Wild or cultivated Pandanus leaves,
291 coconut fronds, and stems of wild plants such as Hibiscus
824 tiliaceus or Eleocharis dulcis are sources of fiber from
287 which the various types of ta'ovala are made. The tapa
248 cloth or ngatu is prepared from the inner bark of the
paper mulberry plant (Broussonetia papyrifera), which is
291 planted as a crop in the bush gardens. Belts or twine used
824 to hold the garments in place are often made out of either
coconut or Hibiscus fiber.

342 In the case of housing or shelter, the role of the
241 agricultural system is again of considerable importance as
342 a source of materials. Table 19 is an enumeration of
128 housetypes found as part of the survey of 192 allotments on
Tongatapu. Although it is often difficult to distinguish a
342 "small wooden" house from a "large wooden" house, there is
no doubt that almost half of the major dwelling units are
342 of the traditional thatched variety (fale Tonga). A fale is
824 constructed with plaited coconut fronds for walls and roofing; coconut and other local timber for poles, beams
and framework; and coconut fiber and the inner bark of
Hibiscus tiliaceus for lashing and tying the roofing down.
In some cases, varieties of bamboo (Bambusa or Miscanthus)
are used for walls. The leaves of a type of sugarcane, au,
are used in the construction of a superior and long-lasting
thatched roof. Even wooden houses are often constructed
partially or entirely from local timber.

CHAPTER IV

PLANT ASSOCIATIONS AND AGRICULTURAL PRACTICES ON BUSH ALLOTMENTS

●128 The purpose of this chapter is to look at the cumulative effect of the three input variables: the physical environment, the cultural setting and economy, and the pool of available plant species. The survey of 101 bush allotments provided the data on which most of the description and analysis is based.

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137 The characteristic vegetation pattern of the bush allotment can be described most simply as a dynamic mosaic of plots containing a great variety of subsistence and cash crops within a matrix of secondary vegetation in various stages of regrowth. Throughout this mosaic of cultivated plants and secondary vegetation are scattered a variety of useful tree species which are cultivated or protected by Tongan farmers. The diversity of plant associations found on Tongatapu is well illustrated by a transect of a 2.04 mile (3.29 kilometers) portion of Tongatapu in the area of Veitongo. The transect extends from the coastal littoral forest of the upraised southern coast to the mangrove swamps of the low-lying northern coast (Figures 12 and 13). There are many crops, crop combinations, stages of secondary regrowth and scattered tree species found on this portion of the island. In

[TEXT CONTINUED ON PAGE 198]

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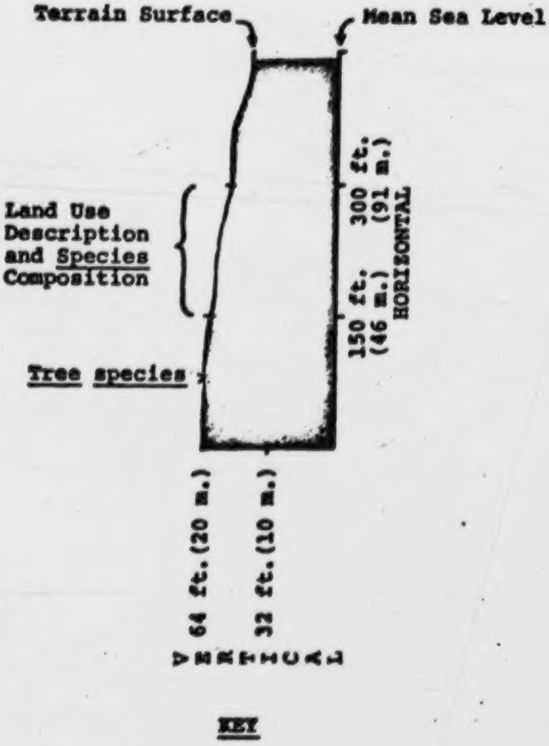
Terrain Surface
Mean Sea Level
Land Use Description and Species Composition
Tree species
300 ft. (91 m.)
150 ft. (46 m.)
HORIZONTAL
64 ft. (20 m.)
32 ft. (10 m.)
VERTICAL
KEY

Figure. 13. Tongatapu land use and vegetation transect and key.

241 comparison with other portions of Tongatapu, however, this
311 area has a relatively uniform secondary regrowth dominated
137 by *Panicum maximum* (*saafa*) and other grasses and relatively
125 few important tree species. For Tongatapu as a whole,
128 because of the diversity of plant species and associations,
241 as well as their rapidly changing nature, it was decided to
311 conduct an exhaustive random sampling survey of the bush
137 allotments as described in Chapter I and Appendix A.[A]
Consequently, the quantitative data presented are based on
the survey of 101 or 1.8 percent of the approximately
5,652 bush allotments on Tongatapu. The sampled allotments
had a combined area of 806 acres (326 hectares), 1.8 percent of the 45,214 acres (18,298 hectares) of bush allotments on Tongatapu.
128 From the total of 101 sample bush
241 allotments, 29 allotments were mapped to give the reader a
311 feeling for the diversity of agricultural landscapes
137 (Table 28 and Figures 14-42). In an effort to subjectively
[126] evaluate distributional patterns of vegetation types or
128 other related agricultural phenomena, the presence or
absence of each item in the survey was plotted on maps of
Tongatapu. An example of these maps is shown in Figure 43.

Extent of Cultivation

311 In the sample of 101 bush allotments, approximately
241 275 acres (111 hectares) or 34 percent of the total area
was cultivated. This amounted to an average cultivated area
of 2.7 acres (1.1 hectares) per allotment. However, of the

[A] [See Category 125, pp. 10-15, 350-358--Analyst.]

[TEXT CONTINUED ON PAGE ~~233~~] 198

88: Thaman K-5 (1967-1973) 1978 OU9 Tonga OU9
Tongatapu

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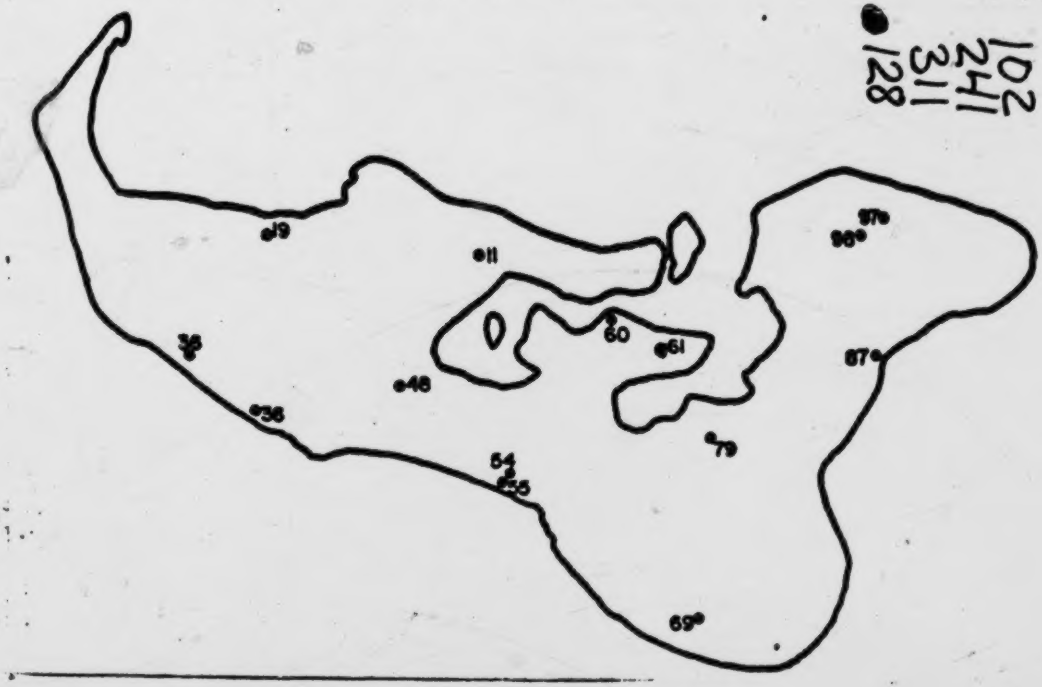
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Figure 43. Outline map of Tongatapu showing the locations and sample numbers of of the 14 uncultivated allotments from the sample survey of 101 bush allotments. Such maps were prepared for each item in the survey of bush allotments.

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233 Grazing occurs mainly on hereditary estates or leaseholdings, and out of the sample of 101 bush allotments only one had any grazing land, approximately 3 acres (1.2 hectares). [245] [137] Like some of the larger plantations, the allotment was partially fenced, was well planted with coconut palms and scattered citrus, and other useful trees with an understory dominated by Paspalum conjugatum (vailima), Elephantopus mollis, Psidium guajava (kuava), Stachytarpheta urticaefolia (iku'ikuma), and Dryopteris invisa (hulufe). 000 The practice of setting aside pasture land will possibly become more common as a result of initiation of the Cattle Subsidy Scheme in 1971.

241 With respect to cultivated land, it was often difficult to differentiate between subsistence and commercial crops. 241 438 439 Bananas, watermelons, pineapples, garden vegetables, and peanuts are grown primarily for export or local sale but are occasionally cultivated for home use. Conversely, many of the important subsistence crops, such as yams, taro, plantains, and even manioc are often produced for export and local sale. 128 241 In order to simplify the already complicated inventory scheme, it was decided to tabulate as commercial crops all species such as bananas, watermelons, and pineapples, that are commonly grown commercially and to tabulate yams, taro, manioc, etc. as subsistence crops. 241 On this basis, of the total acreage of 101 sample allotments, 30 percent was in subsistence

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ment as a small stand near a temporary dwelling and on another as a carefully cultivated plot approximately one-eighth acre (0.05 hectare) in area.

Turmeric or *ango* (*Curcuma longa*) was found on two allotments in a wild state. It is generally protected owing to the value of its rhizome for the preparation of a yellow dye (*enga*) and various medicines.

Uhi (*Evodia hortensis* f. *simplicifolia*) was on 2 sampl allotments as isolated bushes, which were either cultivated or protected for medicinal use.

241 There are, no doubt, additional valuable non-food plants on Tongatapu bush allotments not included in the 101 sample allotments.

Commercial Crops

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Such crops as bananas and plantains, watermelons, peanuts, rock melons, vanilla, and most garden vegetables are classified here as commercial crops, as they are all commonly cultivated for either export or local sale. Nevertheless, it should be stressed that they are also cultivated on a subsistence basis. Where these crops were present in commercial quantities, 1/10 acre or more, acreage estimates were made; otherwise presence was merely noted (Table 35).

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As these data show, commercial bananas or *siaine Ha'amoa* (*Musa sapientum*) are the most widespread commercial crop. In almost all cases, bananas were planted alone in

241 245 ities on seven allotments, were intercropped in only one case; this was with manioc.

241 245 The only other cases of commercial intercropping were one case where capsicum and green beans were planted together and another where cantaloupes (meleni maka) were planted with manioc.

241 178 Although intercropping, as part of commercial cropping, is discouraged, this practice continues on bush allotments because emphasis on subsistence production is still great and commercial crops are generally of secondary importance.

Important Tree Species

241 245 A considerable number of important tree species are either cultivated or protected on bush allotments throughout Tongatapu.

Coconut Palms

241 245 125 128 In the case of coconut palms, estimated cover was used rather than counts of individual trees. The intervals used for estimating cover were: 100%, 75%, 50%, 25%, 10%, 5% and 0% (see Appendix A).[A] Cover was defined as being 100% where palms were planted densely enough to total about 60 per acre (150 per hectare). The head of the Coconut Replanting Scheme considered this to be a fair estimate of the number of palms which, if planted throughout an allotment, would provide optimum yields (Liyanage, D.V., 1971, personal communication). Although individual

[A] [See Category 125, pp. 350-358--Analyst.]

241 palms were not counted as part of the survey, after the
245 completion of the survey, the palms on 16 of the sample
128 allotments were counted to determine the accuracy of the
125 estimates (Table 36).

241 Table 36. Inventories of coconut palms on 16 selected
245 bush allotments and the corresponding survey estimates.

Allotment No.	Acreage	(Hectares)	Estimated Coverage	Estimated Number	Actual Count
1	7.58	(3.07)	25%	115	141
2	8.25	(3.34)	75%	375	336
3	8.26	(3.34)	75%	375	354
6	6.41	(2.59)	50%	194	286
7	8.00	(3.24)	25%	121	172
8	4.22	(1.71)	25%	64	116
9	8.47	(3.43)	25%	128	234
10	8.36	(3.38)	50%	253	245
12	4.76	(1.93)	75%	216	211
23	8.25	(3.34)	25%	125	135
27	5.01	(2.03)	100%	303	427
33	4.10	(1.66)	50%	124	169
34	6.22	(2.52)	75%	376	296
59	8.27	(3.35)	75%	376	452
75	8.25	(3.34)	25%	125	155
77	8.25	(3.34)	10%	100	70

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Table 38. Continued.

Scientific Name	Tongan Name	Present	5-9 Trees	10+ Trees
Theobroma cacao	koko	1	0	0
Anacardium occidentale	apu	1	0	0
Ficus carica	fiki Palangi	1	0	0
Malus pumila	'apele Palangi	1	0	0
Prunus persica	piisi	1	0	0

Mango, citrus trees, and breadfruit are found randomly scattered throughout bush allotments, as well as cultivated or preserved in small groves, often near dwellings. Tava and the Tahitian chestnut or ifi are found more often in a wild state, generally randomly scattered throughout, the allotment. Occasionally, these trees are planted or preserved as allotment boundary markers and in the past, before formal cadastral surveys, wild Tahitian chestnut trees, in particular, were common boundary markers.

The guava is also widespread on bush allotments but is considered to be more of a noxious weed than a valuable tree species and, although large trees are occasionally protected, especially around dwellings, guava is generally cleared together with the secondary vegetation before [128] cropping. The figures in Table 38 include only large guava

241 trees and not seedlings among the secondary vegetation.
245 Almost all guava trees that were inventoried were found in
[128] older secondary vegetation.

Other common trees found on over 10 percent of the allotments were avocado or *avoka* (*Persea americana*), Indian almond or *telie* (*Terminalia catappa*), soursop or '*apele 'Initia* (*Annona muricata*), Polynesian vi-apple or *vi Spondias dulcis*), and Malay apple (*Syzygium malaccense*).

A number of more recently introduced fruit trees were observed on only one or two sample bush allotments: the rose apple or *fekika Palangi* (*Syzygium jambos*), cocoa or *koko* (*Theobroma cacao*), the cashew or *apu* (*Anacardium occidentale*), the edible fig or *fiki Palangi* (*Ficus carica*), the apple or '*apele Palangi* (*Malus pumila*), and the peach or *piisi* (*Prunus persica*). It is interesting to note that three of these six species are described by the suffix *Palangi* meaning European.

Fruit trees constitute a dominant feature on most bush allotments and are almost always, except in the case of the guava, planted or protected. The most important species continue to be the traditional species of Southeast Asian or Pacific origin, including mango, citrus, *tava*, breadfruit, Tahitian chestnut, Indian almond, soursop, vi-apple, and the Malay apple, together with a number of introductions from America, such as avocado and guava.

241 125 (Table 40). During the survey, by using combinations of
species, each portion of fallow vegetation was classified
according to its approximate age; an estimate of the area
was made by pacing; and the species composition was recorded. The age classes that were used in the survey were:
241 128 1, 2, 3-5, 5-10, and over 10 year fallow. There is of
course considerable overlap of species between age classes,
and in different areas of the island, different species may
be dominant in a given age-class fallow association (Table
241 128 137 40). For example, in parts of the Hihifo or Western District, an area of 3-5 year fallow might have _Lantana
camara_, _Psidium guajava_, and _Paspalum conjugatum_ as
dominants; areas of 3-5 year fallow in Vahe Loto or the
Central District might have _Panicum maximum_ and _Indigofera
suffruticosa_ as dominants whereas an area of the same age-class in the Hahake or Eastern District might have _Leucaena
leucocephala_ as the dominant. Finally, the age-class
intervals are not equal because, as the time of fallow
increases, it becomes increasingly difficult to estimate
the length of fallow accurately.

241 _Extent of Fallow Land_

The combined area for all fallow age-classes was 573
acres (232 hectares) or 71 percent of the total sample area
241 128 (Table 41). This is evidently a slight exaggeration,
because this estimate plus those for area of cultivated
land and pasture totaled 851 acres, 6 percent above the

[TEXT CONTINUED ON PAGE 278]

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[128]

Table 40. Species composition of specified age-classes of bush fallow (the asterisks * indicate those species, which either alone, in association with other species, or because of their state of maturity were major indicators of a specified age class; within each age-class, the species listed first are generally the earlier members of a given succession).

1-Year Fallow

*Portulaca oleracea
*Euphorbia hirta
*Commelina spp.
*Oxalis corniculata
*Cyperus rotundus
*Kyllinga monocephala
*Cassia tora
*Sonchus oleraceus
*Phaseolus semierectus
*Erigeron sumatrensis
*Vernonia cinerea
*Emilia sonchifolia
*Bidens pilosa
*Physalis angulata
*Solanum nigrum
*Solanum uporo

Sorghum halepense
Paspalum conjugatum
*Synedrella nodiflora
Rhynchelytrum repens
Cenchrus echinatus
Indigofera suffruticosa
Sida rhombifolia
Canna indica
Panicum maximum
Stachytarpheta urticaefolia
Canavalia maritima
Pueraria lobata
Ipomoea gracilis
Triumfetta bartramia
Psidium guajava

241 actual total acreage of the 101 allotments.

● 128 Age of Fallow Land

241 [311] Approximately half of all land on the sample allotments had been under fallow for five years or less. A very low percentage of the sample acreage had been under fallow for over ten years, mostly uncultivable littoral or swamp forest. 241 137 Of the non-swamp areas under fallow for ten years or over, only 3 acres had dense forest stands and the balance had open secondary forests and thickets of *Lantana camara* or *Psidium guajava*. Fallow periods are too short for regeneration of the tropical lowland forest.

Species composition

The survey of the species comprising secondary vegetation attempted to determine both frequency of occurrence and dominance (Table 42).

241 137 125 128 These data are not highly accurate, for two reasons: firstly, most allotments were surveyed only once and the species composition of early pioneer species might vary considerably depending upon either the season or the time elapsed since a plot had been cleared for cultivation, weeded, or harvested; and secondly, in the latter stages of the survey, the author was able to recognize non-dominant species, which might have been overlooked during the earlier stages of the survey.

241 137 Many weedy species were present on at least 75 percent of the sample allotments (Table 42). Some of them, such as

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[128]

Table 42. Frequency and importance scores of species comprising secondary vegetation on 101 sample bush allotments (Importance scores are based on 3 points per allotment where a given species was considered dominant or co-dominant; 2 points if it was abundant but not dominant; and 1 point if it was simply present).

Scientific Name	Tongan Name	Frequency of occurrence per 101 allotments	Importance Score
Indigofera suffruticosa	'akauveli	99	240
Paspalum conjugatum	vailima	98	230
Sorghum halepense	kola	97	233
Synedrella nodiflora	pakaka	92	199
Sida rhombifolia	te'ehoosi	92	168
Cyperus rotundus	pakopako	91	219
Emilia sonchifolia	fisipuna	90	163
Lantana camara	talatala	90	220
Stachytarpheta urticaefolia	iku'ikuma	88	144
Mimosa pudica	mateloi	86	150
Dryopteris invisa	hulufe	85	152
Solanum verbascifolium	pula	85	144
Psidium guajava	kuava	81	161
Canna indica	misimisi	81	132
Panicum maximum	saafa	78	192
Commelina spp.	kaningi	77	122
Ipomoea gracilis	fue	76	138

CHAPTER V

PLANT ASSOCIATIONS AND AGRICULTURAL PRACTICES ON TOWN ALLOTMENTS.

125 Data were collected during a survey of 192 town
allotments, 113 in Nuku'alofa and 79 in the rural villages
of Fo'ui - Ha'avakatolo (20), Niutoua (12), 'Utulau (24)
and Fua'amotu (16) (Figure 3).A

351 Town allotments on Tongatapu average about one-half
342 acre or less and usually contain a sleeping house (fale
343 mohe) and, depending on the type and size of household, a
number of other structures, including separate kitchens
(peito), other smaller sleeping houses (fale mohe), out-
351 houses (fale vao), and washhouses. (Fale kaukau). Other
improvements may include fences, water supply systems, and
351 livestock pens. The vegetation complex ranges from almost
241 untended to highly cultivated subsistence and ornamental
gardens.

241 In the discussion of gardens on bush allotments, the
acreage of different crops was considered; however, owing
128 to the limited cultivable area on town allotments, only the
presence and relative abundance of crops and important
tree species will be discussed. No consideration will be
given here to commercial crops and fallow vegetation
because they occupy negligible areas on town allotments.

A[See Category 116, p. 14--Analyst.]

CHAPTER VI

CONCLUSION

128 The purpose of this chapter is two-fold: 1) to
summarize the findings on the nature and importance of the
Tongan agricultural system as practiced in bush and town
allotments in 1971 - 72; 2) to suggest trends or developmental paths that the system is likely to follow.

241 Nature and Importance of the Agricultural System

The importance of agriculture in Tonga cannot be over-
241 emphasized. At the 1966 census, 67 percent of the Kingdom's
463 males over 15 years of age were either directly or indirectly employed in agriculture, with 64 percent being directly involved in agricultural production for household consumption (Fiefia, 1968 : 74). Similarly, the results of the questionnaire survey of households on Tongatapu indicated that 53 percent of the heads of 150 households were full-time farmers, 15 percent part-time farmers, 24 percent wage-earners, and 8 percent unemployed. Of the wage-earners (the majority of whom live in Nuku'alofa), 58 percent practiced
241 some gardening on their bush allotments. Agricultural
439 products accounted for more than 97 percent of Tonga's
export earnings in 1971 (Government of Tonga, 1972a).

241 One further measure of the importance of the agricul-
438 tural system is the rapid expansion of trading at Talamahu
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Other important subsistence crops, sometimes planted alone, although generally interplanted with the above crops, were giant taro (Alocasia macrorrhiza), plantains (Musa paradisiaca), bananas (Musa sapientum), and Goa yam (Dioscorea
[128] esculenta). Excluding coconut palms, which were considered a tree crop and did not enter into the acreage estimates, bananas (in plantations) comprised 42 percent of the commercial acreage with the balance being made up by other commercial crops such as watermelons, pineapples, peanuts, plantains, corn, and garden vegetables.

Intercropping is most widely practiced with subsistence crops. Yams are almost always intercropped, mainly with giant taro, American taro, swamp taro, and plantains, and occasionally with bananas or Goa yams. Swamp taro and American taro are often intercropped, and manioc and sweet potatoes are rarely intercropped with other species. Only limited intercropping is practiced with commercial crops, although in a few cases taro was planted under bananas, pineapples under manioc, and watermelons among yams.

241 Cropping sequences usually last from two to five years, after which the land is left fallow from two to six
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244
years. After clearing the secondary vegetation and associated intercropped species, yams are usually the first crop planted. American taro generally follows yams and in turn is followed by manioc before the land is allowed to

social interaction among Tongans in this early period has been very useful in inter- 121
preting both traditions about early Tongan social organisation that no longer 175
exists, and present-day social organisation. A fresh look at the results of Cook's voyages has been most rewarding in this attempt to interpret Tongan material culture in the context of its eighteenth-century social system, and perhaps would be equally rewarding for other island groups visited by Cook.

NOTES

This article is a revised version of a lecture given at the University of Oxford in May 1970. 121
It was associated with a special exhibition at the Pitt Rivers Museum of the J. R. Forster [127]
collection obtained on Cook's second voyage.

Research on Tongan material culture was carried out in museums in the U.S.A. mainland, 114
Hawaii, Fiji, and Europe from 1967 to 1970 supported by the Wenner-Gren Foundation for
Anthropological Research. Eighteen months fieldwork in Tonga from 1964 to 1967 was 122
supported by Wenner-Gren and Public Health Service Fellowship No. 5F1–MH–25, 984–02 [101]
from the National Institute of Mental Health. To both of these agencies I wish to express my
appreciation. I wish to thank the many museums that permitted me to study their collections, 114
especially the Pitt Rivers Museum, Oxford, whose collection is the basis of this article, and Peter [127]
Gathercole, at that time Lecturer in Ethnology, University of Oxford, for helpful comments
on the manuscript. I would also like to acknowledge permission from the Pitt Rivers Museum, [128]
Oxford, to publish the photographs in plates 4, 5, 6, 9, 10, 11, and 12 taken by Peter Narracott;
plate 7, supplied by the Museum für Völkerkunde, Vienna; and plate 8, supplied by the Peabody Museum, Salem, Massachusetts. My thanks are also due to Bruce Erickson of Bishop Museum for the prints in plates 1, 2, 3, and 13—plates 1 and 2 are from the volume of plates from Cook's second voyage, plate 13 is from the volume of plates from Cook's third voyage, and plate 3, is from a kodachrome transparency taken by the author.

[1] Not entirely free, of course, because Le Maire, Tasman, and Wallis had traded also. In fact, 000
the Forsters collected a nail that tradition said came from a European, and which was hafted in Tongan style and used as a gouge—now in Pitt Rivers Museum.

[2] See Whitehead 1969 for similar difficulties in trying to trace zoological specimens from Cook's voyages, and he was not trying to identify his specimens by voyage.

[3] Cleveley was a draughtsman who sailed on the *Adventure*, but left the Cook expedition to go to Iceland with Banks. It is likely that these objects were given to Banks after the second voyage and depicted by his artist, Cleveley, especially as it is thought that Banks gave the volume of prints in which it appears to the British Museum. The volume is noted: 'It is not known how or when these volumes came to the Print Room but probably with some others bequeathed by Sir Joseph Banks and placed there in 1832 and transferred to the Dept. of M.S. in 1845'. Perhaps the baskets were given to the Department of Ethnography at the same time. The date 1774 is a mystery. It cannot refer to the date of the drawing because the Cook expedition did not return to England until 1775. It may refer to the date of collection, because the expedition was in Tonga in 1774.

[4] The Department of Manuscripts at the British Museum also has other volumes of drawings which are very useful for identifying objects from Cook's voyage.

[5] For a comprehensive study of Tongan material culture see Kaeppler (in preparation).

[6] Smith is probably correct, for in a preliminary study for this engraving, now in the Mitchell Library, Sydney (NPL:M (PXD59–^{1})), the figures in the boat are drawn by one artist (Hodges?) while the figures on shore are not only drawn by another artist (Cipriani?), but the paper on which they are sketched is pasted over the Hodges part of the sketch.

[7] It is interesting to note that the Mitchell Library sketch referred to in note 6 is done showing all the fingers on the hands—and it was probably Hodges who instructed the engraver to remove the fingers from the final version.

[8] The outstanding Tongan collections from the third voyage are the Webber collection in [127]
Bern, Switzerland, and the collection in Vienna, Austria, purchased at the sale of the Leverian Museum in London in 1806.

[9] See also Moschner 1967; colour plate 5, for a photograph of the other side of the headdress.

[10] It is reproduced in Beaglehole 1967: plate 17, following p. 144, and in Rienits & Rienits 1968: 136.

[11] For a discussion of continuity and change in Tongan dance and social organisation, see Kaeppler 1967, and 1970.

[12] The movement is written in Labanotation in Kaeppler 1967: 515.

93: Urbanowicz E-4 (1970-1971) 1978
OU9 Tonga OU9

MOTIVES AND METHODS: MISSIONARIES IN TONGA IN THE EARLY 19TH CENTURY(1)

Charles F. Urbanowicz

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114 A variety of writers, including Scarr,(2) Rutherford,(3) Kennedy,(4) and Barney(5) have presented more than adequate views of selected Tongan political matters after the mid-19th century and into the early part of the 20th century. Decktor Korn's recent exemplary works(6) clearly indicate that quite a bit of "re-thinking" is still needed in the realm of interpreting 121 changing and aboriginal Tongan culture. It is the intention of this brief article to place early 19th century Tongan affairs into additional ethnographic perspective by means of ethnohistorical techniques.(7)

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128 1. Earlier versions of this paper were prepared for a variety of Symposia sponsored by the Association for Social Anthropology in Oceania (ASAO); the 71st Annual Meeting of the American Anthropological Association, November 29–December 2, 1972; the Second Annual Meeting of the ASAO, March 21-25, 1973; and the Fourth Annual Meeting of the ASAO, March 26-30, 1975. Numerous individuals have commented on my Tongan work, none of whom, of course, is responsible for what 101 is presented. Research was conducted in the Polynesian Kingdom of Tonga from July to October 1970 and again from August to October 1971. In the intervening months archival research was conducted in the major libraries of Fiji, New Zealand, 127 and Australia. Most of the research was done in the Mitchell Library, Sydney, Australia. Permission to work with and cite from the various sources held by the numerous institutions is greatfully acknowledged (see Urbanowicz 1972: vi-vii).
2. Scarr 1968.
3. Rutherford 1971.
4. Kennedy 1972.
5. Barney 1974.
6. Decktor Korn 1974, 1975. Increasing interest is also evident by a forthcoming volume edited by Rutherford, advertised as *The Friendly Islands: A History of Tonga*.
7. The term "ethnohistory" is not synonymous with "culture history" as the distinguished Pacific historian H. E. Maude has written (1971:21). The "-history" in the term refers not to the writing of history, but to the application of historical methods to a given body of data, in order to gather verifiable ethnographic facts of the past. See, for example, Biggs (1960), Maranda (1964), Oppenheim (1973), Oliver (1974), or Urbanowicz (1973 and 1975). Unquestionably, historical processes are discussed in the various presentations, but the emphasis in the term "ethnohistory" is on the elucidation of reputable ethnographic evidence of the past. Oliver's 20-year labour of love, for there is no other way to phrase it adequately, is a clear example of what can be accomplished in the realm of Pacific ethnohistory, given a sufficient amount of time and resources; Maranda's work is a classic indication that some of Sahlins' specifics and generalisations (1958) are unwarranted; and Biggs and Oppenheim have each contributed to a further clarification of Maori life by means of ethnohistorical techniques.

Demographic Aspects of Ethnography: Data from the Tonga Islands[*]

by Shulamit R. Decktor Korn
State University of New York at Albany

121 In recent years there has been a number of articles promoting and supporting inter-disciplinary collaboration between anthropologists and demographers. The purpose of this paper is to carry forward the attempt to alert both demographers and anthropologists to the demographic potential of ethnographic data. I write not so much as a proselytizer but as one who has been converted, and I am concerned here with both the potential and the limitations of ethnographic data that are collected without demographic analysis in mind.

● 128 The type of data I wish to focus on are those collected in the course of the kind of censusing that anthropologists call a household survey. These are hard data whose quantity, range, and reliability recommend their use as a data-source for demographic analysis. The reason I focus on these data is that the household survey, together with participant-observation and intensive interviewing, is part of the basic procedure of the field ethnographer conducting a community-based study (Carroll
121 1975b, Colson 1967, Mitchell 1967, Pelto 1970). Thus, demographic data derived from household surveys are of particular interest for their possible contribution to demography because these materials are collected by anthropologists as a matter of course. Furthermore, these are often data from the non-western societies that are the typical locales of anthropological research, precisely where conventional demographic data-sources are most deficient. If these materials could be made available to demographers, their contribution would go beyond anthropologists providing demographers with understanding of the social and

none was missed. In the course of this I was told about children who 125 had died, and I noticed that in many families some child had died. 124 I was particularly sensitive to this because I knew of two infants who had died in the period since I arrived in Motulahi (and a third died a few weeks before I left). Thus I began to ask explicitly about children who were no longer alive. By then, however, I was about half-way through the survey. So, while I have a fairly complete set of data relating to the number of surviving offspring, my information on the number of children ever born is incomplete and this limits the demographic value of my data on fertility and infant mortality. Similarly, I cannot make a complete enumeration of maternal age at the birth of the first child (even if I were sure of the woman's age), nor can I deal properly with the question of the length of birth intervals, because I failed to ask when children not resident in the household were born (see Table 2). These questions relate to demographic indices that are not available from the reports on the national census, and could have been an important contribution to the demography of Tonga (McArthur 1968: 94--95). Had I recognized the demographic significance of such enquiry at the time of fieldwork, the overall value of the data that I did collect could have been enhanced with little extra effort.

Conclusion

In this paper I have called attention to demographic aspects of some of 121 the data anthropologists collect as a matter of course while in the field. [128] Using materials from my own fieldwork, I have tried to show both the promise and the limitations of these data. My claim is that materials collected by anthropologists have considerable potential as a data-source for demographic analysis, but anthropologists must learn the elements of demography before they can be of more than limited use to demographers. My own case serves as an object lesson that unless anthropologists are mindful of the demographic implications of their data, they are likely to return from the field with material whose demographic value is limited because the data are incomplete.

/7/

FOREWORD

114
101 This work is essentially the result of my research journey to the Tonga Islands. From October 1951 to June 1952 I stayed in this Archipelago and worked in five Tongan settlements: on the small islands of Nomuka, Lifuka and 'Uiha, on the larger Vava'u Island and in the "capital city" Nuku'alofa. In June/July 1952 I visited Samoa and Fiji for comparative study.

121 The concept of "culture" that underlies this work embraces everything that man brings forth in his struggle with his environment and his fellowmen, that is to say, economy, technology, as well as society and the"spiritual aspects" (namely, religion, art, knowledge).

[177] The change in this culture brought about by European influence is here referred to as "cultural change."

128 In the first part of the work, the Tongan cultural change in the various areas of native life is examined, the present condition being compared with the past (that is, at the time of beginning European influence).

In the second part, the general course of that cultural change is described and then compared with the cultural change among three other primitive communities, in order, thereafter, to attempt an interpretation of the causes of this development in Tongan culture.

The third, concluding part of the work contains a general consideration of cultural change among primitive peoples, brought about by European influences, and an account of the various methods used in examining it. A

The, in part, quite detailed description of the present state of Tongan culture proposes to enable the reader to check specific conclusions, to make comprehension easier for the non-Oceanist, and, in addition, to give a general picture of a present-day Polynesian culture beyond the special problem of cultural change.

A [This section, comprising pp. 332-351 of the foreign text, has not been translated for the OU9 Tonga file.--Analyst]

/7 cont./

128 The various statistical surveys seem necessary since, in some areas, a clear evaluation is only possible on the basis of numerical verification.

/8/ In the second part, comparisons with cultural change in Fiji, Samoa and Buganda are particularly useful insofar as they show that the remarkable development in Tonga is not necessarily unique.

The methods used in the investigation are described in the concluding part (on pages 341-343 and 349-351).^

Though the source material here presented on the Tonga Archipelago is in some respects fragmentary, it nonetheless contains a wealth of data (1)

1. Especially as a result of the excellent descriptions of William Mariner, published by J. Martin. (An account of the natives of the Tonga Islands /cited in English/. 2 vols. London 1817.)

which show the basic nature of ancient Tongan culture and which doubtless permit a comparison with its present state. It would be scarcely responsible not to take into account the old source material especially in such a changed culture. For it is with the historical approach, above all, that we can gather the building blocks for an understanding of human cultures and their capacity for change.

122 The journey, the evaluation of its results, and their publication were made possible by the German Society for Scientific Research to which I owe very special thanks. Furthermore, I must thank the Ministry of Culture of Lower Saxony for substantial support.

128 I feel very much indebted to Professor Dr. H. Trimborn, Bonn, and to Professor Dr. G. Eckert, Braunschweig, for their efforts and for the publication of this book.

To Professor Dr. H. Plischke, Gottingen, to Professor Dr. H. Nevermann, Berlin, and to Dr. G. Spannaus, Gottingen, I feel very

^ [This section dealing with the general problems of cultural change has not been translated for the Files--Analyst]

/8 cont./

128 much indebted for numerous suggestions.

His Royal Highness Crownprince Tungi of Tonga I thank for his great understanding for my work and his influential assistance.

114 I should also like to mention in particular my faithful Tonga friend, F. Sitoa of Nomuka who, for three months, was my constant companion and intelligent go-between.

000 I am indebted to so many who willingly helped me in the field that it would be unjust to mention individual names. Nevertheless, I should like to mention a few here:

Mr. W. Straatmans and Mr. M.L. Apon, Nuku'alofa (Tonga);
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Tukia, Pangai/Lifuka (Tonag);
The Honorable Malupo, 'Uiha (Tonga);
H. To'angutu, 'Uiha (Tonga);
/9/ 'A. Vaea, 'Uiha (Tonga);
S. Amalani, Fungamisi/Vava'u (Tonga);
Mr. Schulke, Vava'u (Tonga);
Mr. E. Stehlin, Apia (Samoa);
Father Jepson, Apia (Samoa);
Father Merten, Falealupo/Savai'i (Samoa);
Vito, Falealupo/Savai'i (Samoa);
Mr. W.J.E. Eason, M.A., Suva (Fiji);
E.N. Sanimo, Nasigatoka (Fiji);
Mr. A.E. May, Roseville/Sydney (Australia).

128 I must thank Dr. H. Hurlimann, Winterthur/Switzerland, for the scientific names of Tongan plants.

To Mrs. G. Konig I am indebted for the drawings and the map.

My wife I thank for her tireless assistance in the clerical work and the proofreading; with the latter my mother also helped me very much.

G. K.

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131 /11/

INTRODUCTION

The Tonga Islands lie in the southwestern Pacific. The

/183 cont./

262 seaweed, crabs), pigs and chickens (481)

481. See J. Martin, loc. cit. II. p. 282.

still make up the basic food of the natives of these islands. European influences, however, in the food sector, are of considerable and 262 growing importance. 177 For approximately one hundred years, there has been increasing interest in manioc which was introduced by whites, and for a few decades canned meat and fish, foods prepared with flour, white bread, zwieback and sugar have become very popular supplementary foods among the Tongans of all the islands, while the consumption of salted meat, condensed milk, marmelade, rice, tea, coffee and cocoa has been limited more to the seaports and the villages adjacent to them. Among European foods, canned corned beef is by far in the lead, and is a favorite supplement to meals which, according to our ideas, are very simply prepared and often consist exclusively of carbohydrates.

262 128 184 The following tables show 353 everyday meals consumed on certain fixed days in April 1952 in 92 households in the village of 'Uiha, and 173 everyday meals consumed on certain fixed days in May 1952 in 37 households in the village of Fungamisi. 'Uiha is a typical village of the smaller islands, while Fungamisi may be cited as an example of a settlement near a seaport.

125 and a calculation of their basic nutritional content. (While protein was of prime importance, the effect of other macro nutrients, fat, and carbohydrates were also considered as were dietary minerals including zinc, iron and copper.) A second method involved a brief physical examination of a sample of Tongan children. This included such observations as teeth (caries), hair, general body tone and structure, plus a tricep skinfold measurement taken in conjunction with upper arm circumference.

121 With regard to population increases, a mathematical compari-
128 son of migration from Tonga, to immigration into the nation, provided
[127] an accurate estimate of population totals. Combining this estimate
with data concerning growth in urban population and rural density, collected from census material, resulted in an indication of the distribution of population growth and migration potential.

121 Using agricultural data gathered from census materials and
127 ministerial reports, a brief historical outline (i.e., post-World
121 War II) of land usage patterns was developed. (The postwar period evidenced the most rapid population growth.) This indicated developmental trends in specific aspects of agriculture, such as cash cropping, the spread of plant diseases, etc., which altered agricultural patterns. Trends in land utilization and land abandonment were established, such as tenancy, absentee landholding, etc.

121 Assessing the nutritional status of urban population and
125 geographically comparing these findings with rural inhabitants became a major undertaking in itself. However, because alteration in nutritional status was to be related to urbanization only in

369 Considering the urban characteristics set forth by the South Pacific Commission as being applicable to the Pacific islands, it becomes apparent that the cities of Pangai, Neiafu, and Nuku'alofa can be defined as being urban centers. In the case of Mu'a, though larger than Pangai in terms of population, the lack of such urban characteristics as government, commerce, and economics eliminates it from urban classification, under the South Pacific Commission's definition.

162 Other population groupings of significance include church
795 training facilities and schools. The most important of these are
873 Salote College and Toloa Methodist Training College, sponsored by
874 the Wesleyan Methodist organization, and Liahona High School,
[162] sponsored by the Church of Jesus Christ of Latter Day Saints. Each
of these include several hundred students and staff, many of whom
live in housing provided by the respective schools.

874 Other groupings to be considered within this classification
162 are the training camp for the Tongan defense force and the police
training facility, both on Tongatupa. The population of these two
facilities, though largely transient, must be recognized.

161 The historical growth of Tongan population can only be
128 estimated through calculation of approximate numbers supported by
161 approximate tillable acreage. Therefore, figures representing the
128 population prior to the first census (1921) reflect educated guesses
127 supported at times by missionary estimates and head counts (Walsh
1970, p. 31). In addition, none of the censuses prior to 1956 can
161
127 be considered to be entirely reliable. McArthur stated that

161 fluctuations of the population of individual islands "are such as to
127 arouse considerable doubts of the accuracy of either the recording
or summarizing of the data" (McArthur 1968, p. 81).

161 It is generally assumed that an estimated pre-European population of 29,700 represents a reasonable figure. This estimate, by
Maude (1965), takes into account the entire Tongan group and will
suffice as a starting point from which a discussion of modern Tongan
[128] population can begin. Table 1 represents a summation of available
population data, beginning with the pre-European period. Although
it is recognized that the historical statistics prior to the 1956
census are primarily estimations, several broad conclusions can be
161 drawn from this table. An overall pattern of population decline
174 and recovery, common to most of the Pacific island groups, is evident throughout Tongan history. In addition, three contact phases,
following Tasman's initial landing on Tongatupa, are suggested and
supported within the historical population data of Table 1
(Tupouniua 1957, p. 17).

[165] Phase one, from 1643 to 1799, represents the period of
Tongan history for which there are no records "of any large scale
destruction through disease, and internal wars were totally unknown"
(Tupouniua 1957, p. 17). This period began with Tasman's visit and
continued until Cook's last contact with the islands. Due to the
absence of wars and disease, a balanced population with a steady,
if somewhat slow, growth rate can be assumed.

161 Phase two represents the civil war period, from 1800 to
165 1852, a period of "bewilderment and social disintegration marked by

[TEXT CONTINUED ON PAGE 26]

311 accessible and abundant sea resource. This is true of western
161 Tongatapu and the western sides of the Ha'apai islands, with the reefs of inner Ha'apai being the most productive.

369 Urban areas are by definition high density zones, and therefore need not be defended as such. However, urban density
369 can be examined in relation to size of housing units within the
162 islands. The average size of the Tongan household, as reported in
592 1966, included 6.7 persons. Recently collected data indicated no significant change in this level. However, the census reported nine villages with households averaging eight persons, and four villages which averaged over nine persons per household. Most of these were located on Tongatapu. Similarly, recent study indicated the average household size in Nuku'alofa to be 7.96; Pangai, 7.55; and Neiafu, 7.42. In addition, more than 63 percent of those households containing three or more nuclear family units were located on Tongatapu.

161 High density rural areas may number more than 2,000 persons per square mile, as in some parts of Ha'apai, while urban densities may be much higher. The average density of the population on inhabited islands, in 1966, was approximately 375 persons per square mile. This represented an increase in overall density per square mile of nearly 100 persons, from 1956 to 1966. However, these statistics are of little significance, unless considered in relation to the Kingdom's available human, natural, and agricultural resources.
● 128 The following sections, which treat land tenure and agricultural exchange, will rely heavily upon an analysis of these resources, and their critical interrelations within Tonga.

423 The same reasoning applies to historically prevalent variations in
[121] size of holdings.[1] Though an exposé of these issues is not the
intent of this research, they are, nonetheless, considerations with
[128] regard to population and land distribution. The following paragraphs describe the land tenure system in practice, in contrast to that outlined by Tongan law and theory.

423 Within the Tongan tenure system, there are two principal
565 types of land holdings--the estates of the royalty and nobility,
[643] and the land allotments of the average citizens. The 1927 Land Act
listed three types of estates: those belonging to the King, those belonging to the royal family, and the hereditary estates of the Tongan nobility. At present, 39 nobles retain control, beneath the Crown, of 31.1 percent of the total land area (see Table 10). About 60 percent of the Tongan population resides upon hereditary estates. A few of the nobility retain possession of two estates or one estate and other small holdings. In addition, some holdings may be on more than one island, or fragmented on a single island. These features complicate the assessment of these holdings, in terms of land area involved, usage, and amount of leasing. Discussions with employees of the Tongan Ministry of Lands revealed that although the Land Act of 1927 requires the registration of estates and their boundaries, approximately one-half of the existing estates have not been listed.

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[1] The 'api tukuhau, or rural allotment, is most frequently 8.25 acres in size. However, sizes do vary considerably owing to a variety of circumstances, which need not be discussed, with regard to the tenure system. The average rural allotment ascertained through interviews amounted to 9.63 acres, with extremes of two acres and 48 acres being encountered.

241 one-quarter acres, except for the above mentioned modifications, and
423 [433] thus significantly limits the future expansion of cash cropping. In
[425] some cases, this has led to the borrowing of land, whereby the
borrowed land is used for family food production, while intensive
cash cropping is carried out on the borrower's individual allotment.

241 Despite the above deterrents, agriculture remains the funda-
433 mental basis of the Tongan economy. The following chapter contains
● 128 an indepth analysis of this agricultural activity.

228 [655] facilities are governmentally controlled. Thus, most fishermen catch only that which will satisfy family needs, plus a small quantity for immediate sale.

434 Data determining income levels from all types of cash food production (including fishing) was collected during household surveys.[1] Range of income was from zero to $1,200 per year, with a mean of $480 per year for those farmers selling produce. Sale of copra results in the largest cash income, with vegetables (all types) second and bananas third.[2]

434 178 During survey discussions concerning income, it became apparent that cash incomes have increased substantially over the past several years. As a result, Tongan farmers are enjoying an increase in purchasing power, reflected in the purchase of non-traditional items, such as imported foodstuffs or the purchase of [439] [262] food items from local producers. However, while few farmers are totally dependent upon this new cash-based living, the significant increase in the use of canned goods, sugar, bread and assorted imports is an obvious indication of the direction of this trend.

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[128] [1] The average Tongan farmer keeps no record of his yearly or monthly earnings and survey information probably reflects mere estimations. In addition, in several instances, it was apparent that income levels were being exaggerated or minimized for one or more reasons. Although obviously skewed data was excluded from survey data compilation, it is reasonable to assume a margin of error still exists. For this reason, only range and mean of income are used, in an attempt to minimize the effects of misleading data.

[2] The other major contributors to the household cash income include the sale of handicrafts, plus income derived from relatives or overseas sources.

146 rural Tongatapu. These people, displaced by overpopulation, the lack
of land or through the development of cash cropping, represent a
critical potential risk for the development of classical malnutri-
146 tion.[1] A situation cited as being conducive to the development of
164 malnutrition involves a child with diarrhea (as is common in weaning
[757] infants) being fed only warm sugar water, a folk medicine remedy.
This treatment tends to aggravate the initial condition and the
146 cycle develops and intensifies (Tu'itavaka 1974). Subsequent mani-
festations of malnutrition are a lessening of the child's activity
level, an increase of irritability and a retardation in the physical
growth and development of the child.

125 During the investigation designed to determine the physical
conditions of Tongan preschool children, height, weight, arm
circumference and skinfold measures were recorded, as anthropometric
128 indicators of a child's growth and development. Data from each
indicator was grouped as to rural or urban and compared to suggested
standards (The Health Aspects of Food and Nutrition 1972, pp. 278-
283). Percents of variation from standards were then taken and

---

[1] The development of the symptoms of malnutrition (i.e.,
retarded growth and development in preschool subjects) was not
strongly correlated to densely populated rural areas such as rural
Ha'apai and western Tongatapu. Interview responses indicated no
cases of malnutrition in these areas, which may be attributed to the
greater availability of protein. The Nuku'alofa environs produced
the greatest number of cases of malnutrition with Neiafu containing
the second largest number. Only one case of malnutrition from the
outer islands was reported. The staff of Vaiola hospital on
Tongatapu believe malnutrition in Tonga is strongly linked to con-
[124] tinued urbanization. (Interview with S. U. Tu'itavaka, Vaiola
Hospital, Nuku'alofa, Tongatapu, September 24, 1974.)

● 128 averaged, giving a finalized comparative indication of the variation in the physical growth and development of rural and urban preschool children.

141 145 146 Height measurements are summarized in Table 22. These data for age groups 2 years, 1 month, to 5 years, 0 months, clearly show the superior physical growth of the rural child. Although neither variation from the standard suggested by the World Health Organization is substantial, the significance of the data is the rural/urban comparison. In all but 6 of the 35 sample age groups, the rural preschooler was observed to be taller. A comparison of the average height of all subjects with suggested standards showed the rural subjects to be .51 percent above the norm while urban preschoolers fell 2.35 percent below the suggested values. While a total variation of 2.86 percent between rural and urban preschoolers may not be alarming, it is nonetheless reflective of dietary variation among the two groups.

Measurements of weight, summarized in Table 23, are congruent with the data in Table 22, except that the weight measurements show a greater deviation from W.H.O. suggested norms. Rural preschoolers averaged 1.93 percent above suggested standards while uban children of the same age groups averaged 4.11 percent below suggested values. Considering a total difference of 5.04 percent between the weights of rural and urban preschool children, a clearer indication of the consequences of those dietary variations noted above begins to become evident. The urban preschooler is generally smaller in height and weight than his rural counterpart.

141 145 146 Skinfold and circumference measures substantiated this trend. In each case the urban child was found to be smaller and less developed. Skinfold data, summarized in Table 24, evidenced the greatest variations between urban and rural children. Skinfold measurements of rural preschool children of both sexes were significantly higher than their urban counterparts, resulting in variation between the two sample groups of 24.38 percent for male subjects and 26.55 percent for female subjects. Circumference data (Table 25) also showed a variation in the development of rural and urban subjects. When compared to suggested norms, rural preschoolers had greater upper arm circumference measurements than urban children by 3.29 percent for male children and 2.80 percent for female children.

Considering the above four physical parameters measured on each preschool subject, it is conclusively evident that the rural child is physically larger and more developed than his urban counterpart. 125 A final nutritional evaluation technique was conducted in which a sample of each child's hair was collected using the procedure outlined in Appendix C.^A 128 Later, each hair specimen was examined and classified as to growing phase (i.e., growing or anagen, and resting or telogen), and bulb and shaft morphological changes. A hair in the growing or anagen phase is characterized by a bell-shaped bulb structure and solid dark pigmentation. The telogen bulb is shaped like a teardrop and shows a distinct lack of pigment (Bradfield 1972, p. 721). 146 [128] Protein malnutrition, in particular, causes hair to shift to the telogen phase. Rural hair samples

^A [See Category 125. p. 184-185--Analyst.]

146 were found to be 79 percent anagen and only 5 percent telogen. Suggested standards call for between 80 and 90 percent anagen, though the exact percent may vary from subject to subject and a percentage greater than 50 may be considered normal (Bradfield 1972, pp. 721-725). (See Table 26 for suggested hair evaluation standards.) Urban samples showed a marked increase in the percent of telogen hair samples. Of the urban sample taken from Nuku'alofa, only 44 percent were classified as anagen while 13 percent were telogen. While this 13 percent incidence of telogen hair falls below the suggested 20 percent indicative of moderate protein malnutrition, it nonetheless shows a significant variation from the rural values. This percentage increase is, therefore, interpreted to be indicative of increasing moderate protein malnutrition in the urban child. The urban incidence of anagen hairs, however, falls well within the values indicative of moderate protein malnutrition and is seen as a positive indication of the lower level of nutritional status in the urban preschooler.

128 Hair samples were also examined to determine the incidence of atrophied bulbs. An atrophied bulb is shrunken, often has a shriveled appearance, and shows a considerable decrease in diameter to the point of being less than the hair shaft itself (Bradfield
146 1972, p. 722). An increase in the incidence of atrophied samples
128 is an indication of severe or chronic protein-calorie malnutrition, and is associated with depletions of tissue reserves. In addition, increases in root atrophy frequently occur simultaneously with depressed weight and height values (Nommacher et al. 1972, p. 874).

146

TABLE 26.--Suggested Standards for Hair Sample Evaluation.

128

Maximum mean bulb diameter, mm x 10^{-2}	>11	Normal
	6-11	Moderate Protein Malnutrition
	< 6	Severe Protein Malnutrition
Atrophy, % of anagen	0-25	Normal
	26-50	Moderate Protein Malnutrition
	>50	Severe Protein Malnutrition
Anagens (%)	>50	Normal
	30-50	Moderate Protein Malnutrition
	<30	Severe Protein Malnutrition
Telogens (%)	<20	Normal
	20-45	Moderate Protein Malnutrition
	>45	Severe Protein Malnutrition

SOURCE: R. B. Bradfield, "Protein Deprivation: Comparative Response of Hair Roots, Serum Protein and Urinary Nitrogen," American Journal of Clinical Nutrition 25 (February 1972): 186-205.

Of the hair samples taken from rural preschool children, 16 percent were classified as being atrophied, a value within the range of normality. However, total urban hair samples showed a 42 percent incidence of root atrophy which is a value near that associated with severe protein malnutrition. The 26 percent variation in the rate of atrophy incidence between rural and urban children is a clear indication of the comparatively poor nutrition and general
146 state of health of the urban child. The high percentage level of
145 telogen and atrophied root samples among the urban preschool children together substantiate the lower level of growth and development indicated by anthropometric measures, as well as a tendency toward severe protein malnutrition. The rural child, on the other hand, was not found to exemplify, to any great extent, these abnormalities.

125 child.[1] Samples were stored in numbered postage envelopes for
126 transit from Tonga, the numbers corresponding with those of the
appropriate survey forms.

128 Examination and analysis of collected specimens also fol-
125 lowed the procedure outlined by Bradfield. Samples were first separated by growth phase (i.e., anagen [growing], telogen [resting]) followed by a classification of morphological changes in each phase. Bulb diameter was determined, using a standard disecting microscope equipped with a micrometer eyepiece. Two measurements for each sample were taken and the average determined. The percent of atrophy (an atrophied bulb is shrunken, having a shriveled appearance and a considerable decrease in bulb diameter) was also determined.

Alterations in bulb, sheath and hair shaft were also noted and classified, although growth phase, root bulb diameter and percent of atrophy were of prime importance to the research. Results of the above were then compared with the figures in Table 26,A which suggests standards for preschool children. The standards formulated by Bradfield were developed from studies of children with Asian and Negroid hair types.

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[1] Because root presence was determined at the time of collection, fewer hairs were necessary than that suggested by Bradfield (1971, p. 70).

A[See Category 128, p. 146—Analyst.]

Tinned Mean Samples

125 Two samples of tinned meat were purchased in Tonga and subsequently analyzed upon completion of the data collection process.
125 The selection of the meat samples was based upon the criteria which
262 influence their consumption by the Tongan people: (1) availability
435 throughout the islands, determined during price surveys in village and urban shops; and (2) price, K. & R. brand Corned Meat Loaf being usually the cheapest of the tinned meat products of comparable variety. It appeared that the large-scale consumption of the meat loaf was based solely upon price as it was perceived to have the lowest prestige value of all tinned meats. Globe Corned Beef, the other tinned meat sample selected, enjoyed a much higher status ranking but had a medium price, making it more acceptable than products advertised to be better quality tinned beef products.

● 128 Each product was analyzed by proximal determination, which
125 supplied values for protein, fat, moisture and ash. Carbohydrate values were determined by the subtraction of the total values for protein, fat, ash and moisture from 100 percent. The Kjedahl-Total Nitrogen method as described by McKenzie was used to determine the protein content while fat content was discovered using the Soxhlet method (McKenzie and Murtphy 1970, p. 158). Moisture was determined by weighing a sample of the product, vacuum drying it at 100°F for 5 hours, and then reweighing it. Ash content determination called for charred samples being placed in a Muffle oven at 500°C for not less than 6 hours.

128 125 Two samples of each product were analyzed, as explained above, and the averages were calculated. The results were presented in Table 21.[1]

Fresh Meat Samples

125 Fresh meat samples imported from Australia and representative of available supplies found in Nuku'alofa were also purchased [435] in four stores. Prices of the product varied from T.50 to .70 per pound. (At the time of purchase, October, 1974, U.S. $1.00 equaled 125 128 T.63.) Small samples of the meat were weighed on a standard Welch balance. Surface fat was removed from each using an ordinary paring knife, followed by weighing. Next, samples were placed in boiling water for four minutes. Recognizing that much of the weight of the melted fat was replaced by water, attempts were made to thoroughly dry each sample over slow heat, prior to reweighing. Although this procedure is not the recommended methodology for fat determination of fresh meat samples, the results nonetheless provide a crude approximation of value. The results of this procedure are presented in Table 28.

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[1] A complete explanation of the procedures used in this analysis may be found by consulting the Official Methods of Analysis of the Association of Official Analytical Chemists 1970.

104: Hornell E,N-5 (1925) 1927 OU9 Tonga OU9

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171 Handy records 30 games and sequences from the Marquesas and 25 from the Society Islands. With the 5 figures recorded by me for Tahiti the total for each group is 30.

My stay in Samoa was too brief to permit much time being given to this subject. None of the European residents had ever seen or heard of any string games known to the natives. When I discovered that several were common and widely known, the suggestion was made that they had been introduced by Europeans and could not be of ancient date. This view is obviously erroneous for though one of the six Samoan games is known in Europe and two others are common to Samoa, to various other Polynesian islands, and to Melanesia, the methods of working the remaining three are unknown at present outside of Samoa itself. I found that every fisher lad and lass knew one or more of the six games, as did also many of the girls attending the Convent school in Apia, although the Sisters in charge had never been aware of this fact. Considering that all the figures or games were collected within five miles of Apia it is very probable that 000 the fringe only of the subject has been touched. Inquiry in the country districts and in the neighboring islands will assuredly repay richly anyone who is willing to devote time to the subject and who has sufficient sympathy with the villagers to overcome the peculiar reluctance of most natives to acknowledge acquaintance with these games—a reluctance due probably to a fear of ridicule for indulgence in a pastime which they fancy the materialistic white man is apt to consider childish.

524 Tonga is another rich field for study. Here ten distinct figures were obtained, but five of these follow as sequences to others. A large number remain to be found and placed on record and until this has been done no comprehensive comparison of relationship can be made.

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171 A longer sojourn and specially favorable opportunities in the Fijian archipelago resulted in the collection of 58 figures. As 28 of these represent sequences of a primary figure, there remains a net total of 30 separate and distinct games, the same number as for the Marquesas and for the Society Islands. These numbers have been approached only by Jenness (12) who recorded 48 figures from Goodenough Island in the D'Entrecasteaux Archipelago.

128 In describing these Fijian figures I do not propose to adopt the classification devised by Handy (10), who uses the terms: stationary figures, progressing figures, sliding figures, figures made by two persons, catches and trick figures, and three dimensioned figures. My chief reason for not following this grouping is that many of the figures partake of the characters of two of the classes mentioned, thus rendering it difficult to locate them satis-

104: Hornell E,N-5 (1925) 1927 OI › Tonga OU9

128 factorily and leading to an arbitrary assignment. The figures here described are set down therefore approximately in the order of their complexity when completed, those without known sequent figures preceding those that form a series of figures, whether worked by a single player or by two players. The two divisions thus formed are about equal in constituent numbers.

524 171 Most Fijian string figures are named after some familiar object which they are supposed to represent. There is thus a large animal series including the owl, the crane, the caterpillar, the butterfly, the flying-fox, the fish (*Periophthalmus*), the sting-ray, the turtle, the land-crab, and the snake. The molluscs are represented by a figure vividly suggestive of the opening and shutting of the valves of the giant clam (*Tridacna*). Other figures represent tavola and ivi trees, and the leaves of the screw-pine (*Pandanus*). In a few figures the Fijians see a resemblance to the sun in one form or another, his rays shooting upwards from the horizon at daybreak or in full symmetry when high in the heavens. One figure is named "the star," having four branches which represent rays.

Many familiar objects of daily life and various household articles find representation, for example, a house, a canoe, a fishing net, a mat, a roll of sennit, a basket, a wicker food-platter, a breadfruit cut open and whale's teeth (formerly used as a valuable form of present).

Unlike the games of the Society Islands, those of Fiji have but few geographical allusions; the references are limited to Koro and Wakaia islands and to a point and an island (Undu Point and Koro Island) situated over against one another, separated still further as the tide rises.

Unlike many games in New Zealand, in the Marquesas, and in the Society Islands, no Fijian game that I know has any mythological significance. Neither does any sign survive to indicate that any of these games ever had a magical value corresponding to those employed in Papua in connection with the planting of yams, as recorded by Landtman (13) and by Jenness (12). Possibly this absence is attributable to the blight of missionary influence upon old customs and games however innocuous or innocent; any such game that existed may have been suppressed by being banned or by having its name changed or boudlerized. (See Handy, 10, pp. 7 and 8.) *Tevoro* is possibly one of these, as the name is merely the Fijian rendering of the English word "devil." The agent in such changes or suppressions has usually been the native catechist or pastor, a man too frequently fanatical in his consuming desire to purge his flock of everything that could possibly remind them of their former god and heroes.

524 171 533 A large number of Fijian string games were originally worked out to the accompaniment of a chant. Many of these chants are almost certainly of great antiquity for the meaning of several of them is not now understood fully by those who repeat the words.

524 171 Whatever the custom in former times, string games in Fiji are played nowadays solely for pastime; even this custom is dying out before the spread of hymn singing, the attendance at football matches, and the general and rapid deterioration of the native culture.

Fijian string games are termed collectively *vei thiu* in those localities where the aristocratic Mbauan dialect is spoken; in Vanua Levu they are usually called *vei sanga.*

ETHNOLOGICAL SIGNIFICANCE

524 171 128 To exhibit the geographical distribution of the figures described from Fiji and Tonga, Table 1 and Table 2 have been prepared.

In making these tables I have utilized, with one exception, only those figures the constructive movements of which are sufficiently similar to permit no doubt of common origin. Figures like those described by Roth (16), in which the final design alone is known, and those in which the movements leading up to similar concluding designs are fundamentally different, have been rigorously excluded. The single exception is the geographic figures representing two islands vis-à-vis, namely, the Fijian figure "Koro and Wakaia," and the Society Islands figure "Tahiti and Moorea." These I include as equivalent and common in origin because of the similarity in the underlying idea.

524 171 Table 1 amply demonstrates the predominance of Melanesian influence in Fiji. Of the 30 solitary or independent figures and series of figures which I have recorded from Fiji, the large total of 12 has been recorded also from New Caledonia, Loyalty Islands, Torres Strait, D'Entrecasteaux Archipelago, and the Fly River district of New Guinea.

Relationship with Tonga comes next in importance, 7 figures being common to Fiji and Tonga. Three of these are not found in New Caledonia and New Guinea areas, suggesting that they are not of Melanesian origin. Nine are common to Fiji and to the Society-Marquesas islands taken as one ethnic and geographic unit, 6 of which are found also in Tonga. It therefore may be concluded that at least most of these figures, as well as those with range restricted to the Society Islands, the Marquesas, Tonga, and Samoa, belong to Polynesian culture.

104: Hornell E,N-5 (1925) 1927 OU Tonga OU9

524 171 It is also noteworthy that the *imbi* is the most widely spread of any string game, either single or serial, in Oceania. In Samoa and in the Gilbert, Tokelau, and Ellice islands, where it has not been recorded, I feel sure that it will eventually be found.

The relationships of the Tongan figures are wholly Polynesian if Fiji be excluded. Only one form is common to Tonga and the New Caledonia area, whereas 2 of the total 10 are found in New Zealand and 3 in the Society and Marquesas islands. Of these 3, one appears also in Samoa and in the Ellice and Tokelau islands.

The Samoan figures are not sufficiently numerous to permit useful or valid conclusions to be drawn, except that 2 of them betoken close relationship with the islands to the westward.

121 As pointed out by Handy (10a) a study of string figures has thrown a strong light on the relationships of primitive peoples, but much more information from many island groups is necessary before the full value of the geographical study of string games can be utilized adequately in the solution of the ethnological problems of Melanesia and Polynesia. The present collection has perhaps its chief value in breaking new ground in certain island groups. What has been done in Samoa and in Tonga is not a tithe of what may be accomplished there if an investigator with tact and a knowledge of the language devotes adequate time to the study. Fiji is so prolific a field that I am satisfied that numerous games remain un-
[524 recorded. Immediate attention to this subject is, however, necessary, for
[178 the people are rapidly forgetting the games and in a few years many will
[533 have become irretrievably lost. I would direct special attention to the
[171 collection of the chants associated with many of the games. Wherever pos-
[126 sible these have been recorded in this collection.

TERMINOLOGY

128 In the description of the movements required to evolve the various figures, I have adopted the technical terms devised by Rivers and Haddon (15), and used also by Handy (10), who describes the terminology in the following convenient form:

> The back of the hand and fingers is referred to as the dorsal side; the palm, as the palmar side; so that a string or a loop is said to lie on the dorsal or the palmar side of the hand or a finger, is picked up on the dorsal or the palmar side of a digit. The little finger side of the hand is called the ulnar side; the thumb side, the radial side; so that strings are said to be ulnar or radial according as they lie on the side of a finger towards the little finger or towards the thumb. Similarly, the direction of the rotation of a hand or a finger is designated as in the ulnar or in the radial direction, according as it describes an arc or a circle starting towards the little finger side of the hand or towards the thumb side.

104: Hornell E,N-5 (1925) 1927 OU9 Tonga OU9

128 Likewise the direction of the twisting of a loop is ulnar or radial. When there is more than one loop on a digit, that lowest, that at the base, is spoken of as the proximal loop; the highest, that near the tip, as the distal loop. There may be a proximal ulnar string on each finger, as well as proximal radial string; a distal ulnar string and a distal radial string. Furthermore, the direction of entering a loop or of picking up a string may be from the proximal, underneath, or from the distal, above; or, as I sometimes express it, the move may be on the proximal or the distal side of the loop or the string.

I have followed Rivers and Haddon (15) in the use of the convenient terms "Position 1" and "Opening A" for moves which commonly begin figures.

Position 1: Place the string on each hand so that it passes along the ulnar side of the hand, the dorsal side of the little finger, between the little and ring-finger, across the palm, between the index finger and the thumb, around the dorsal side of the thumb, along the radial side of the hand across to the opposite hand.

Opening A: Place string on hands in Position 1. With the right index finger, from the proximal direction, pick up the left palmar string and return to position. With the left index finger, from the proximal direction, pick up the right palmar string, inside the right index-finger loop, and return to position.

I have also adopted the term "navahoing," introduced by Haddon (8), who describes it as follows:

> When there are two loops on a digit, a distal one and a proximal one, you are often required to lift the proximal loop over the distal one, and over the tip of the digit on to its palmar aspect. This movement I refer to as *"Navahoing"* on account of its frequent occurrence among the string figures of the Navaho Indians of New Mexico, U. S. A.

Simple everyday terms have been employed, however, in descriptions which involve no possible misunderstanding as to the nature of the movement to be carried out.

[pp. 11-60 not processed]